

■ Features

- Power Rating: 600W
- Input Voltage: 120-277Vac
- Constant current/power design
- Output current(1100-25000mA)
- Efficiency to 95%
- 0-10V/PWM/Timer Dimming
- Communication control, smart control digital port
- Dim-to-off
- LVP, SCP, OVP, and OTP
- IP67
- Surge protection: L-L 6KV, L-G 10KV
- High surge voltage bearing capacity: 380Vac, 10S
- 5-year warranty



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

■ Application

- LED expressway lighting, parking lot lighting, LED fishing lights, LED greenhouse lighting
- Indoor or outdoor lights

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

Model Number	Output Power	Output Voltage	Voltage Range(4)	Typ. Current	Current Range	Programmable Voltage Range(11)	Output Adj Range(12)	Efficiency
L13WCP600S2500-24ST	600W	24V	12-30V	25A	20-25A	24-30V	2-25A	94%
L13WCP600S2000-30ST	600W	30V	15-38V	20A	16-20A	30-38V	1.6-20A	94%
L13WCP600S1670-36ST	600W	36V	18-45V	16.7A	13-16.7A	36-45V	1.3-16.7A	94.5%
L13WCP600S1430-42ST	600W	42V	21-53V	14.3A	11.5-14.3A	42-53V	1.2-14.3A	95%
L13WCP600S1250-48ST	600W	48V	24-54V	12.5A	11.2-12.5A	48-54V	1.1-12.5A	95%
L13WCP600S1120-54ST	600W	54V	27-54V	11.2A	11.2A	54V	1.1-11.2A	95%
L13WCD600S2500-24ST	600W	24V	12-30V	25A	20-25A	24-30V	N/A	94%
L13WCD600S2000-30ST	600W	30V	15-38V	20A	16-20A	30-38V	N/A	94%
L13WCD600S1670-36ST	600W	36V	18-45V	16.7A	13-16.7A	36-45V	N/A	94.5%
L13WCD600S1430-42ST	600W	42V	21-53V	14.3A	11.5-14.3A	42-53V	N/A	95%
L13WCD600S1250-48ST	600W	48V	24-54V	12.5A	11.2-12.5A	48-54V	N/A	95%
L13WCD600S1120-54ST	600W	54V	27-54V	11.2A	11.2A	54V	N/A	95%

■ Technical Data

Input voltage range(5)	120-277Vac, 127-432Vdc
Frequency Range	47-63Hz
Ripple and Noise(2)	300mVp-p(24V), 400mVp-p(30V), 500mVp-p(36V), 600mVp-p(42V), 700mVp-p(48V), 700mVp-p(48V)
Voltage Accuracy(3)	±1%
Line Regulation	±0.5%

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■ **Technical Data(cont.)**

Load Regulation	±0.5%
Rising Time(6)	500ms, 80ms/115Vac, 230Vac
Start Inrush current	10%I _{omax}
Duration	15ms/115Vac, 230Vac
Power factor	≥ 0.98/115Vac, ≥ 0.95/230Vac, ≥ 0.90/277Vac
THD	THD<15% (@load≥50%/115Vac, 230Vac; @load≥75%/277Vac)
Efficiency	94%-95%
AC Current(typ.)	5.8A/115Vac, 2.9A/230Vac, 2.4A/277Vac
Surge(² It)	Cold boot 1.3A ^{2Ps} (10%I _{peak} test width=84μs @230Vac)
16A breaker optional same models	@230Vac, 1 set optional (B model breaker)/2 sets (C model breakers)
Current leakage	<0.75mA/277Vac
Start Function	<3S, time delay start
Stand-by	12V stand-by: 12@0.2A; tolerance: ±5%, Ripple: 100mVp-p(max.)
Over Current Protection	95-110%, CC restricted, after removing the abnormal load, restart and recover after removing the fault condition
Short Circuit Protection	Once the short circuit fault is removed the driver will work properly
Over Voltage Protection	Once the over voltage fault is removed the driver will work properly
Over Temperature Protection	When the Temperature of the Driver exceeds 90°C(±10°C) the driver will shut off for high temperature protection. The driver will not be damaged. Hiccup mode
Operating Temperature	-40°C to +90°C
Case Temperature(8)	-40°C to +75°C
Max Case Temperature	T _{case} =+90°C
Storage Humidity Temperature	-40~+85°C, 10~95% RH, non-condensation
Temp. coefficient	±0.03%/°C(0~55°C)
Vibration tolerance	10~500Hz, 5G 12M/cycle X, Y, and Z axis 72m/each
MTBF	200,000 hrs. min. MIL-HDBK-217F (25°C)
Dimensions	280.8x145x48.5mm
Weight	3.6Kg

■ Safety Compliance

Safety Standard(7)	UL60950-1, UL8750 (type“HL”), CSA C22.2 No. 250.13-12 , ENEC EN61347-1, EN61347-2-13 independent, EN62384, IP65 or IP67, J61347-1, J61347-2-13, CCC GB4943.1, EAC TP TC 004, AS/NZS 60950.1(by CB) certified
High Pot(10)	I/P-O/P:3.75KVAC I/P-FG:2.0KVAC O/P-FG:1.5KVAC
Insulation Resistance	I/P-O/P,I/P-FG,O/P-FG: 100M Ohms/500VDC/25°C/70% RH
EMI(9)	EN55032 (CISPR32) Class B, EN55015, EN61000-3-2 Class C (@load $\geq$ 50%); EN61000-3-3, EAC TP, TC 020, FCC PART 15 CLASS B
EMS	EN61000-4-2,3,4,5,6,8,11; EN61547, EN55024, L-G 4KV, L-L :2KV EAC TP TC 020

Notes:

1. All testing parameters are tested at input 230Vac rated load and 25C temperature.
2. Ripple and noise test: Use one 123" double glue line, and end parallel connect 0.μF and 47μF capacitor, 20MHZ.
3. Accuracy: Includes setting error, line regulation and load regulation.
4. Programming under CP mode, the voltage will adjust to match the load, according to the output range.
5. Low input voltage will decrease the output, this will bring it out of range and protect the output.
6. Rising time tests under a cold start, frequent on/off may increase the rise time, several modes with 0-3S delay start.
7. Safety standards and certified models refer to our certificates.
8. When the case temperature is lower than 75°C, the lifetime will exceed 90,000 hours.
9. The Driver meets EMI standards, but may need to reassess for the entire fixture.
10. Please remove the screw at the end when running the high pot test. Once the test concludes return the screw back to where it was.
11. The programmer which can adjust the current, voltage, power and set the timer for dimming must be Autec brand or similar.
12. The output adj. needs to match 0-10V dimming, PWM controller, and other terminal controller or timer to save energy.

Disclaimer:

Autec Power Systems' (Autec) LED Drivers are Hi-Pot tested during the manufacturing process. Autec assumes no responsibility for secondary Hi-Pot testing at customer location or designated production line(s). Should customer require further Hi-Pot testing, at their own production line, following assembly of the LED Driver into the customer's assembled fixture, Autec requests advance notice. This request must be communicated to Autec in a timely manner and is recommended to be requested at time of issuing each purchase order.

■ Dimming

Dimming Method	Parameter	Min. Value	Typ. Value	Max. Value	Remark
0-10V	0-10V max line voltage	-20V	-	20V	
	0-10V line current	200uA	300uA	450uA	
	12V output line voltage	10.8V	12V	13.2V	
	12V output line current	0mA	-	200mA	Ref point "RC-"
	Recommend dimming input	0V	-	10V	
	Cut off voltage	0.35V	0.5V	0.65V	
	Start Voltage	0.55V	0.7V	0.85V	
	Delaying	-	0.2V	-	Default 0-10V dimming
PWM	PWM high level	3V	-	10V	
	PWM low level	-0.3V	-	0.6V	
	PWM frequency range	200Hz	-	3KHz	
	PWM duty ratio	1%	-	99%	
	PWM dim off(P-logic)	3%	5%	8%	
	PWM dim on(P-logic)	5%	7%	10%	
	PWM dim off(N-logic)	92%	95%	97%	
	PWM dim on(N-logic)	90%	93%	95%	
	Delaying	-	-	2%	PWM dimming need PC for setting
Digital communication	Baud Rate	According to wireless terminal, for other brand, please refer to Note 3			

Notes:

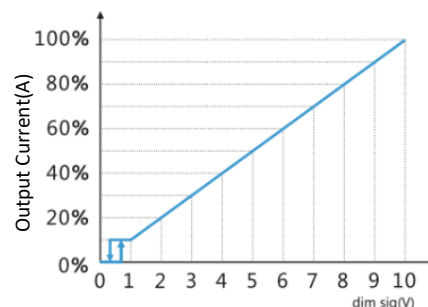
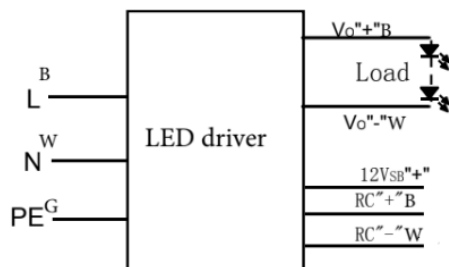
1. All parameters tested under 25°C typ.
2. For dim-to-off and PWM N-logic, contact Autec Sales for more information.
3. For matching with Autec wireless terminal controller.

■ Timer Dimming

Timer dimming includes 3 modes: Self adp-midpoint aligned, fix time, and fix power curve.

- 1) Self adp-midpoint aligned, suppose the midpoint is in the middle of the night, then the dimmer will adjust the working curve over the last two days total working hours.(Error range in 15 mins)

■ DC Dimming

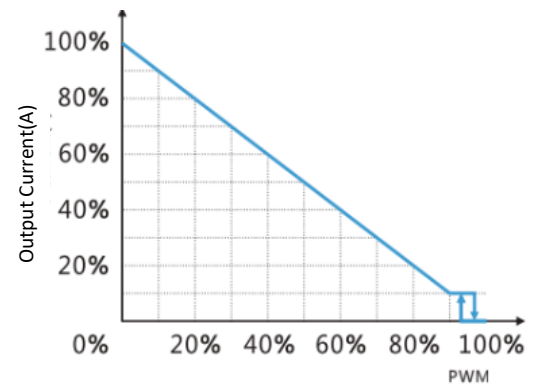
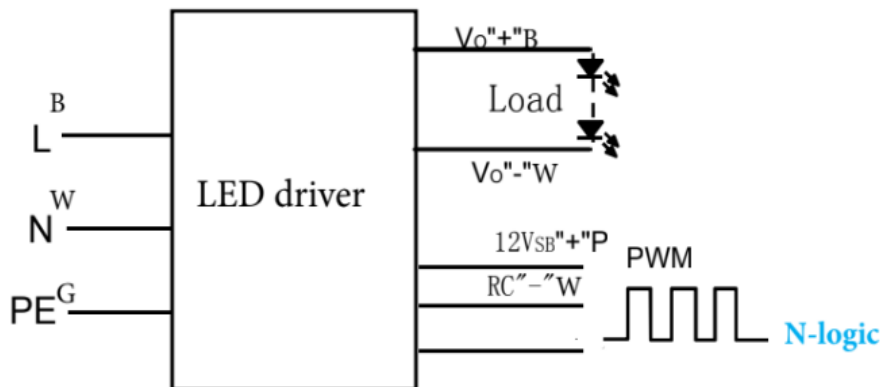
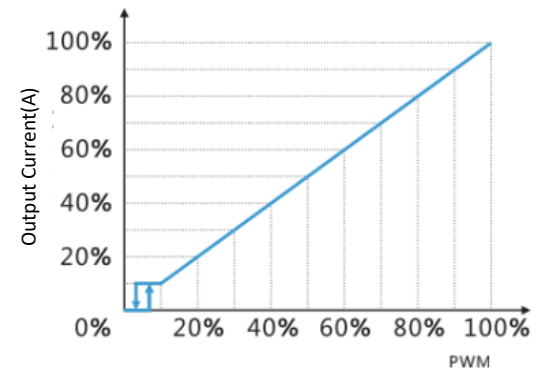
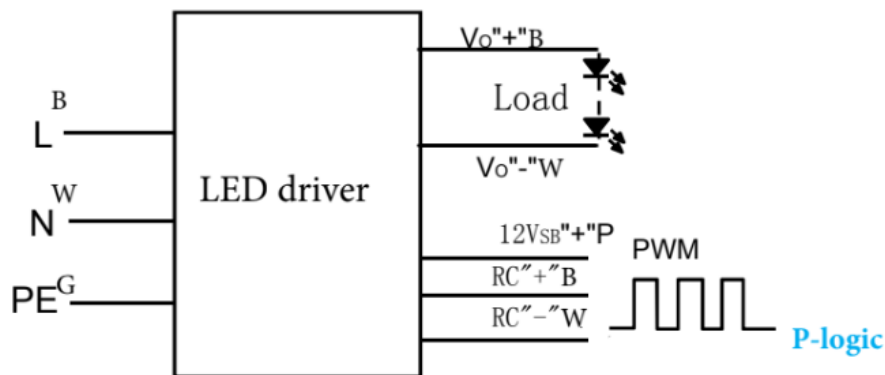


Note: Without 0-10V dimming signal, will run in full power, 0-10V short circuit cut off. The dimmer <0.5mA @10V. Input and output cable may vary as per actual selling area. Contact Autec Sales for any questions

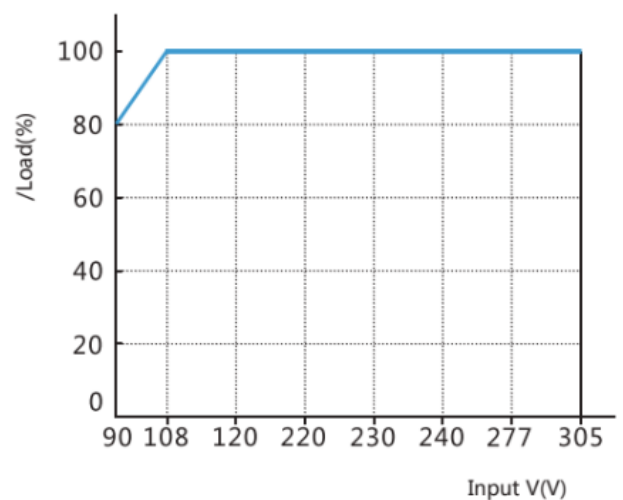
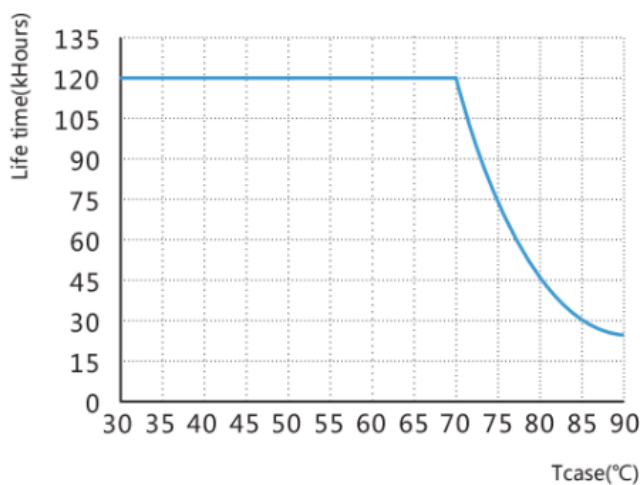
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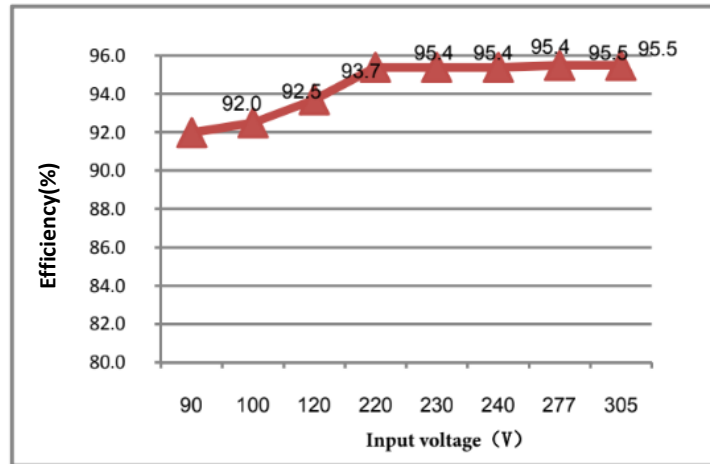
■ PWM Dimming



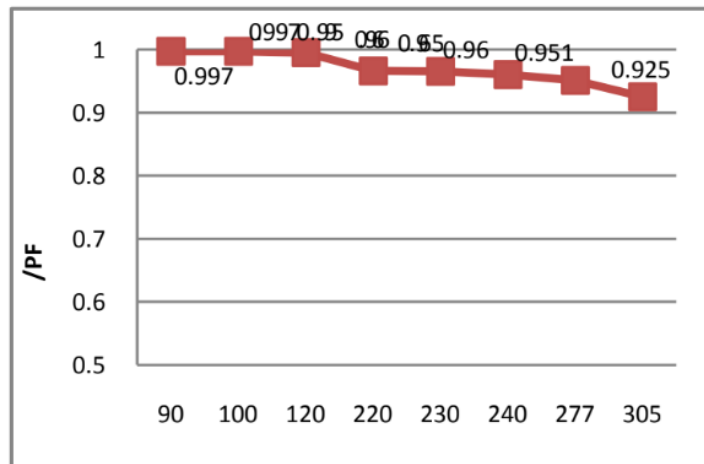
■ Derating Curve



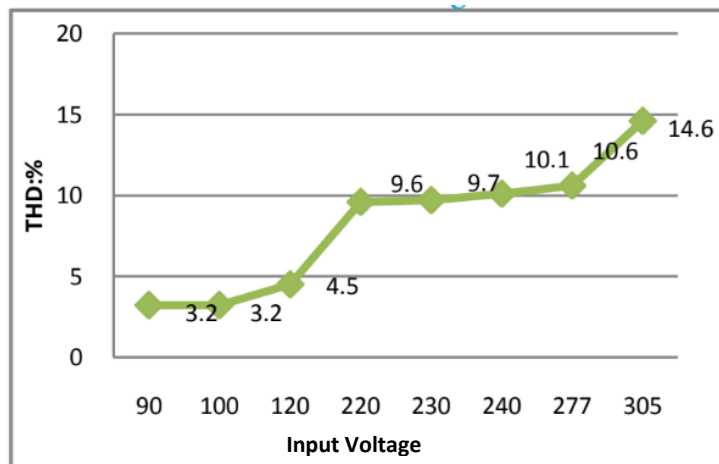
■ **Efficiency vs Voltage**



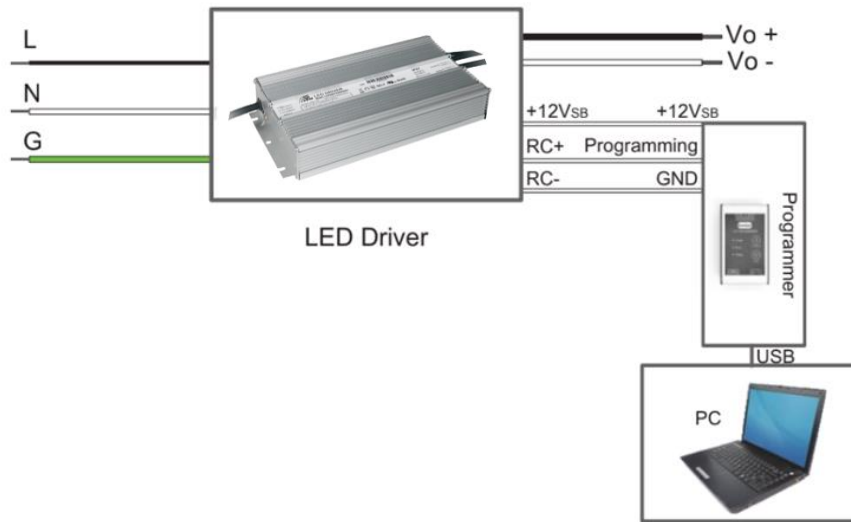
■ **PF vs Voltage**



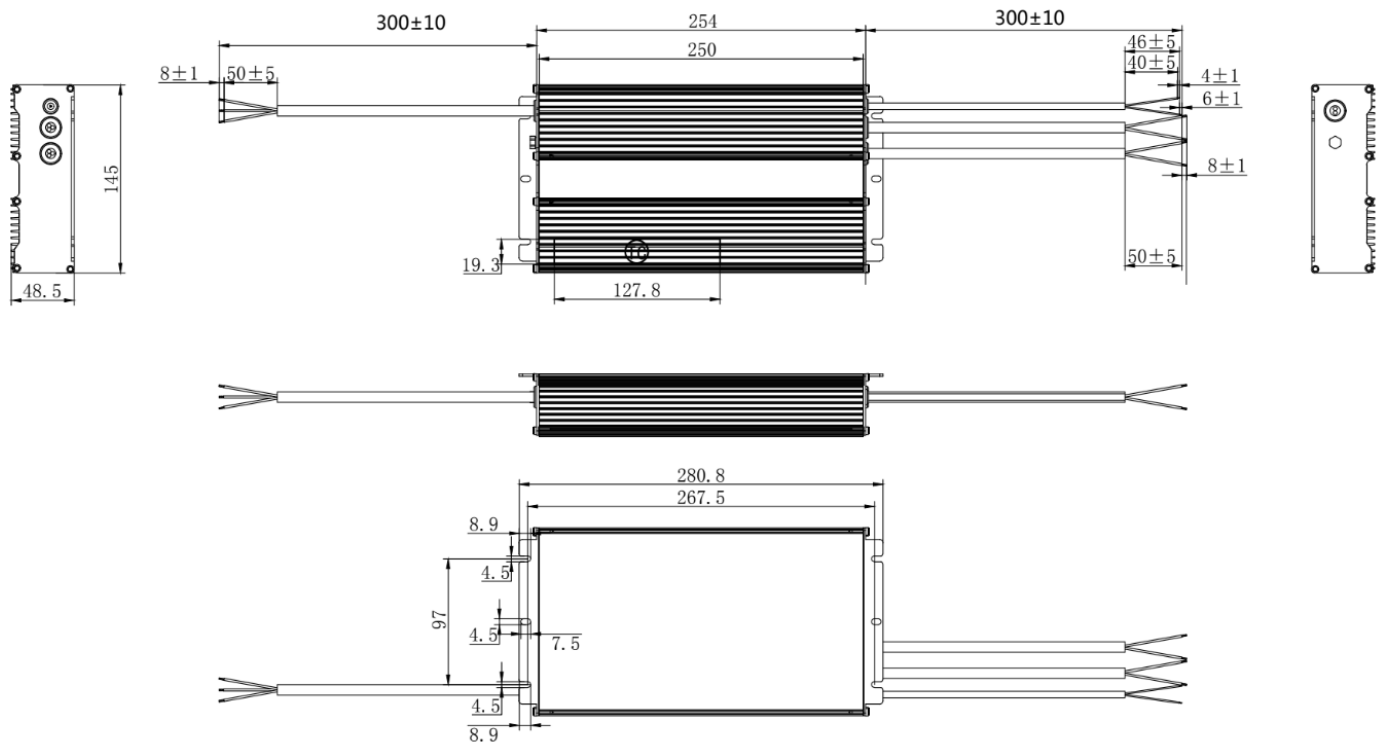
■ **THD vs Voltage**

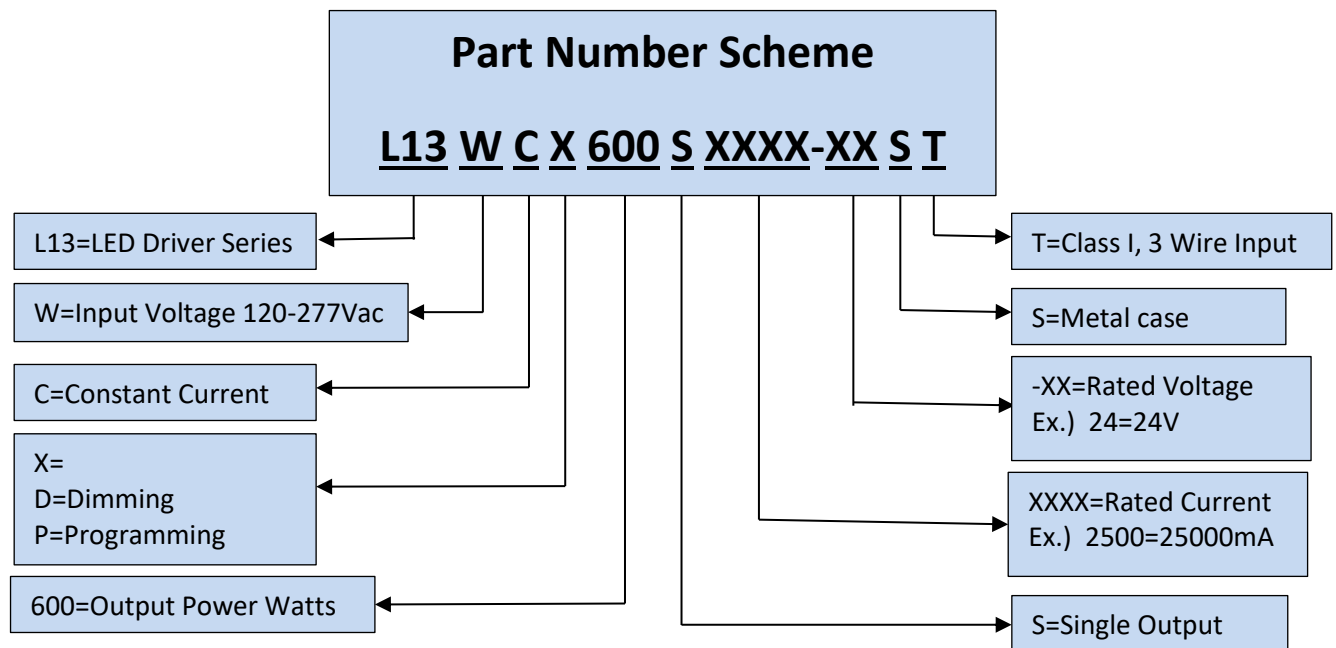


■ Installation



■ Mechanical Diagram





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