L2WCP160 Series

160W, 100-277Vac Input, Programmable Constant Power LED Driver

RoHS Compliant

*Near Field Communication controller

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

Features

- Power Rating: 160W
- Input Voltage: 100-277Vac
- Constant current and constant voltage hybrid output
- Output current (450mA-6670mA)
- Output current programmable with Near Field Communication controller
- Efficiency to 94%
- Compatible with 0-10V, PWM, Timer, Dim-to-off option, 12V/200mA AUX
- UL, Type HL
- Lightning, OVP, SCP, OTP, & Over Current Protection
- Tc=83˚C
- IP67
- 5-year warranty
- Surge Protection: Diff: 6kV, Common: 10kV

Application

- Indoor and outdoor applications

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 110V/220V	Certification
L2WCP160S667ST-XYZ	100-277Vac	160W	24-36V	2670mA	6670mA	89%/91%	UL/cUL
L2WCP160S444ST-XYZ	100-277Vac	160W	36-48V	1770mA	4440mA	90%/92%	UL/cUL
L2WCP160S333ST-XYZ	100-277Vac	160W	48-80V	1330mA	3330mA	92%/93%	UL/cUL
L2WCP160S200ST-XYZ	100-277Vac	160W	80-140V	800mA	2000mA	92%/94%	UL/cUL
L2WCP160S114ST-XYZ	100-277Vac	160W	140-233V	450mA	1140mA	91%/93%	UL/cUL

(Add-J for J-Box, Ex.) L2WCP160SXXXST-J-XYZ; Contact Autec Sales for all options.)

Ordering options	
XY= Programmable	**Z=Dimming**
FC=Near Field Communication	**D=**DALI Dimming
	B=BLE Dimming

Technical Data

Input voltage range	100-277Vac
Frequency	47-63Hz
Power factor	> 0.99 @115Vac & 80~100% Full load, > 0.97 @230Vac & 80~100% Full load
Output voltage	24-233V
Output power	160W
Ripple and Noise	2.5%Vo

■ Technical Data(cont.)

Max input current	1.56A @115Vac, 0.76A@230Vac
Efficiency	89-94%
Line Regulation	±0.3%
Load Regulation	±1.2%
Inrush Current	65A @230Vac cold start +25℃
Dimming	0~10V/ PWM/ Timer, Dim-to-off option
THD	< 20%
Current Programmable	Yes
Output Current Programmable Range	450-6670mA
Over Current Protection	Protection type: Constant current limiting, recovers automatically after fault condition is removed
Short Current Protection	Hiccup mode, recovers automatically after fault condition is removed
Over Voltage Protection	1.3Vo, Protection type: Hiccup mode, recovers automatically after fault condition is removed
Over Temp. Protection	Hiccup mode, recovers automatically after fault condition is removed
Operating Temperature	-35~+70˚C
Max T-case Temp.	83˚C
Operating Humidity	10 ~ 100% RH non-condensing
Storage Temp., Humidity	-40 ~+85℃, 5 ~ 100% RH
Temp. Coefficient	±0.05%℃ (0~50℃)
Vibration	10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes
Dimensions	227x70x37mm
Packing	25pcs/carton
Weight	832.6g

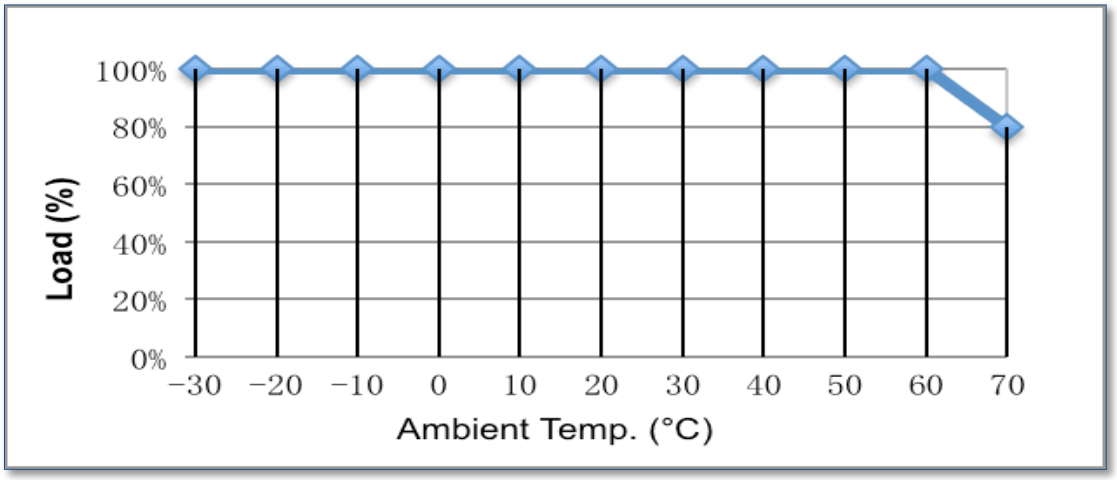
■ Safety Compliance

Safety Standards	UL8750, UL935, UL1012, CSA-C22.2 No.107.1, EN61347-1, EN61347-2-13
Withstand Voltage	I/P – O/P: 3.75kVAC
Isolation Resistance	I/P – O/P: 100M Ohms / 500VDC /25℃ / 70% RH
EMC Emission	Compliance to EN55015, EN61000-3-2 Class C (≥60% load); EN61000-3-3
EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11; EN61547, EN55024

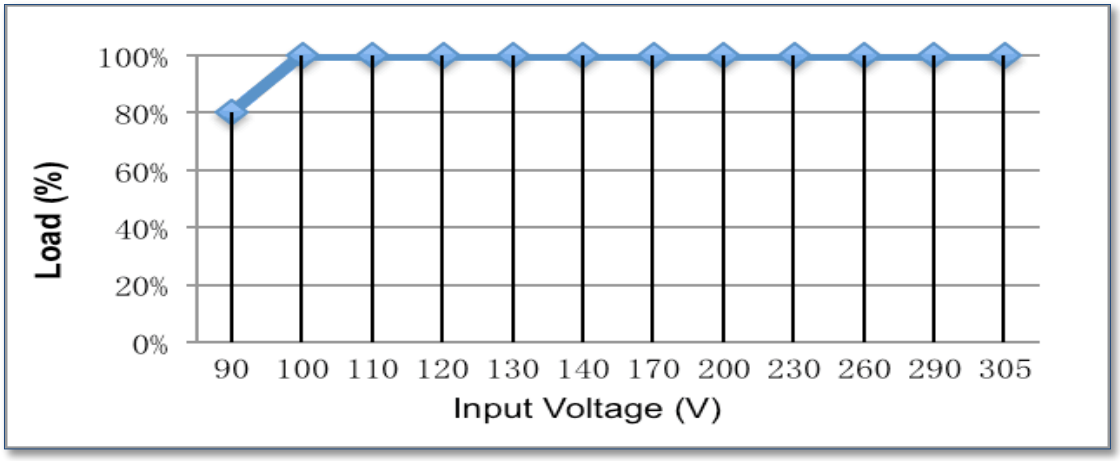
Disclaimer:

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.

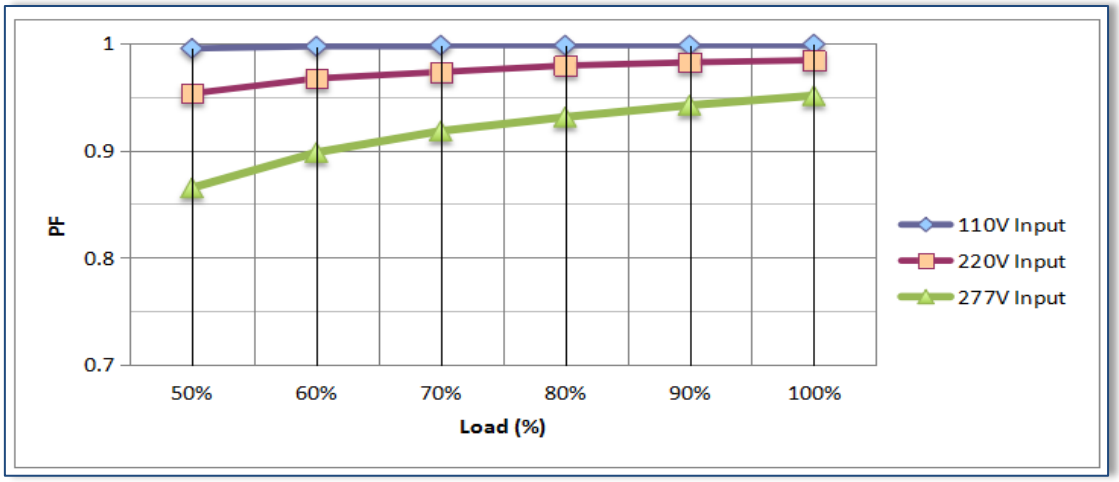
■ Derating curve



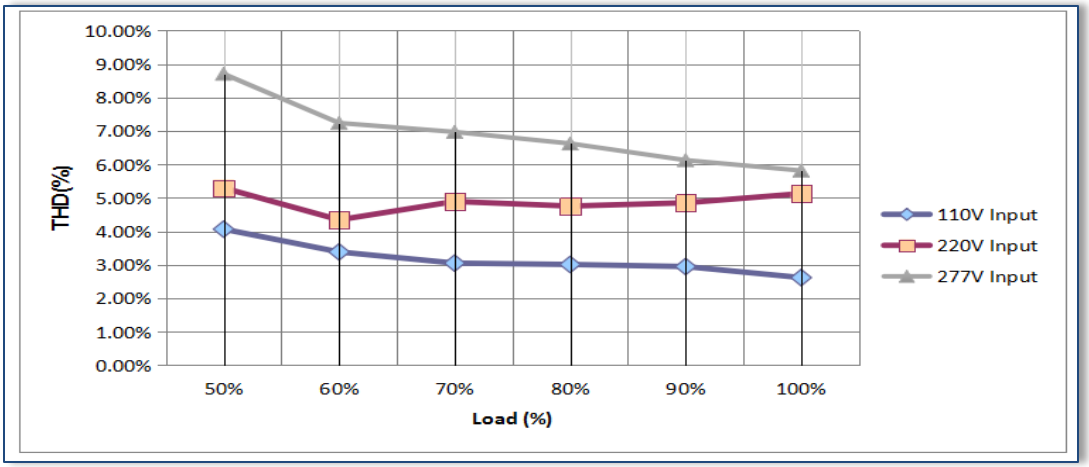
■ Static Characteristics



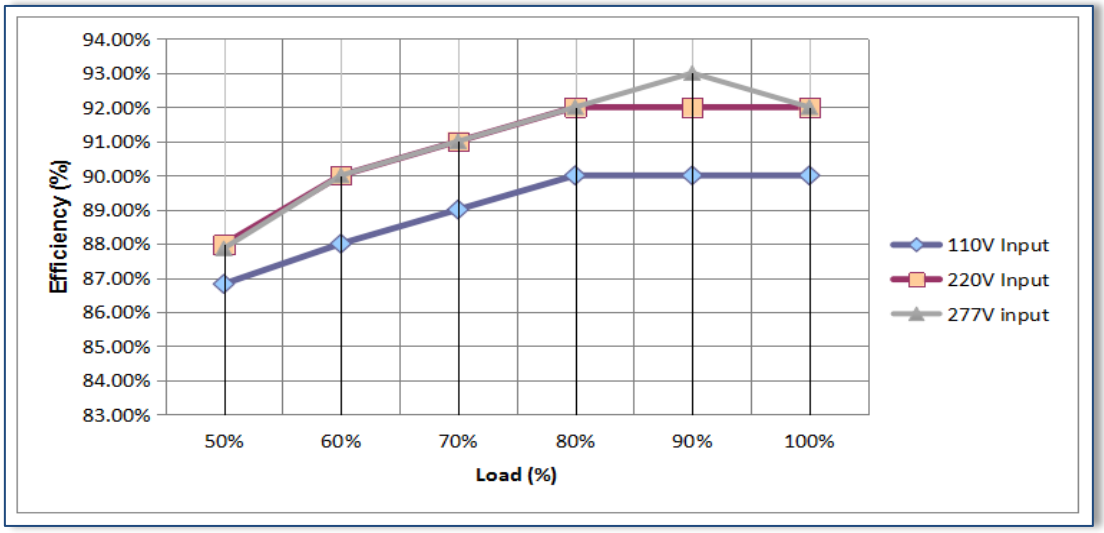
■ Power Factor vs. Output



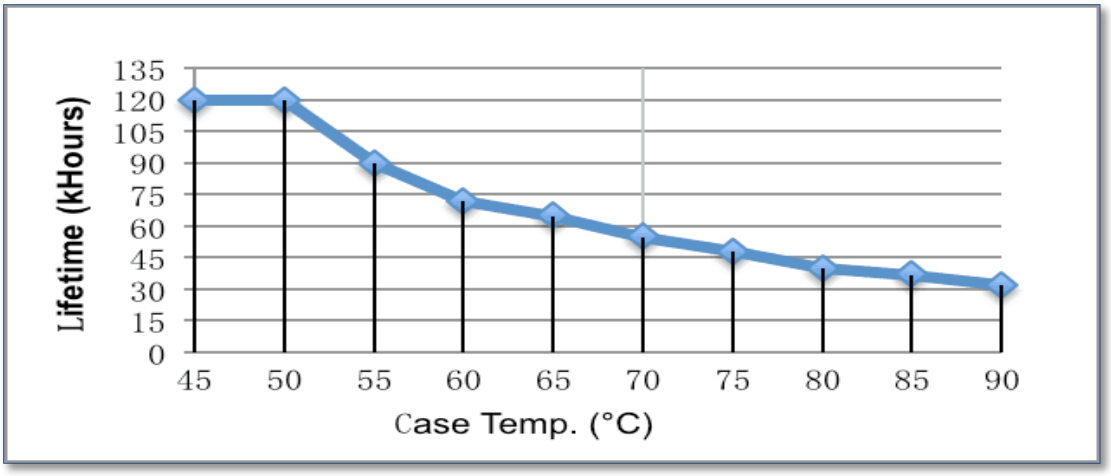
■ THD vs. Output



■ Efficiency vs Output



■ Lifetime vs Case Temp.



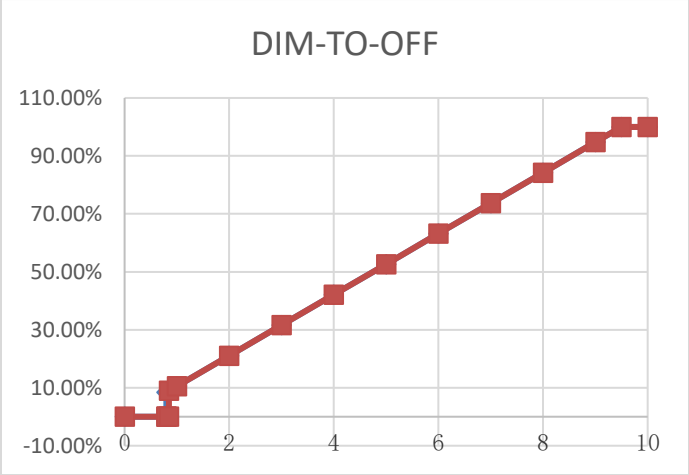
■ Near Field Communication Controller

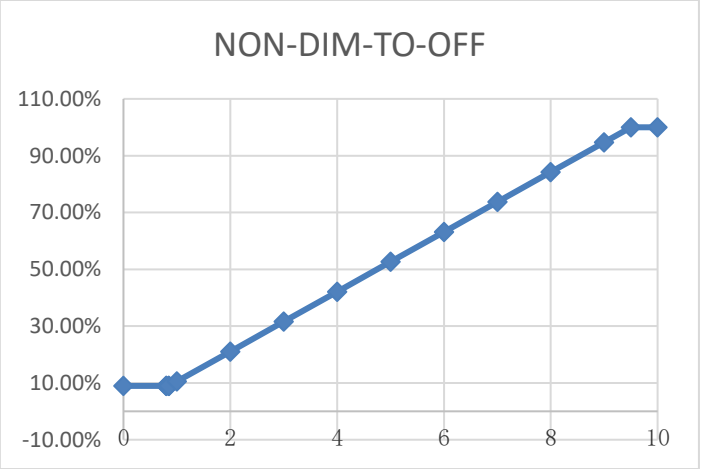
NOTE:

1. The Near Field Communication controller can program the output current, voltage and timer delays.
2. The Near Field Communication programming is a non-contact process, therefore much safer compared to traditional programming methods.
3. Power devices can be programmed without AC power applied to the driver.

■ Dimming

0-10V Analog Dimming &PWM Dimming



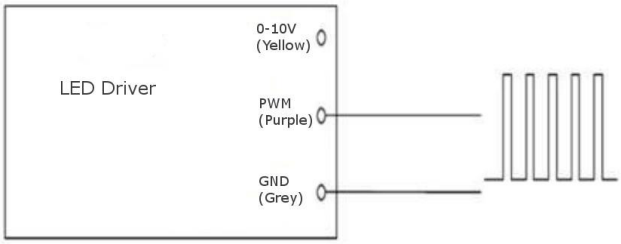


GND	Grey
Dimming wire 0-10V&PWM	Purple
12V AUX	Yellow
Input Dimming Voltage	0-10V
DIM+ Source Current	0-1mA
12V AUX Source Current	200mA
PWM Frequency Range	0.5-3KHZ
PWM high level	10V

NOTE:

1. Io is actual output current and Ir is rated current without dimming control.
2. For the driver to operate properly, the load voltage must be in the working voltage range.
3. We have DIM-TO-OFF option, which can be programmed by the programmer.
4. Maximum input voltage for the dimming wire is 12V.
5. AUX wire is only for source, can't connect to other voltage source.

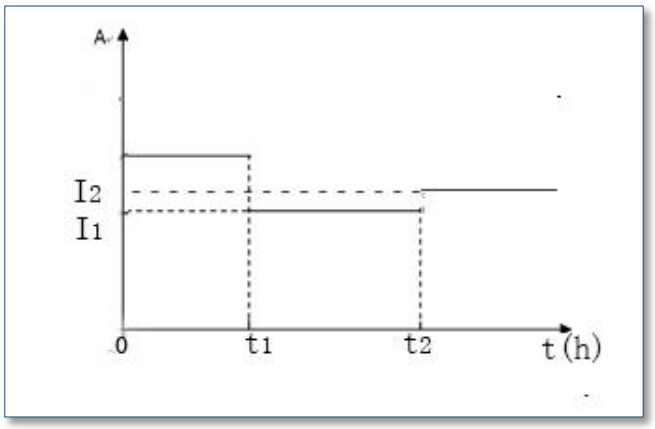
PWM Dimming



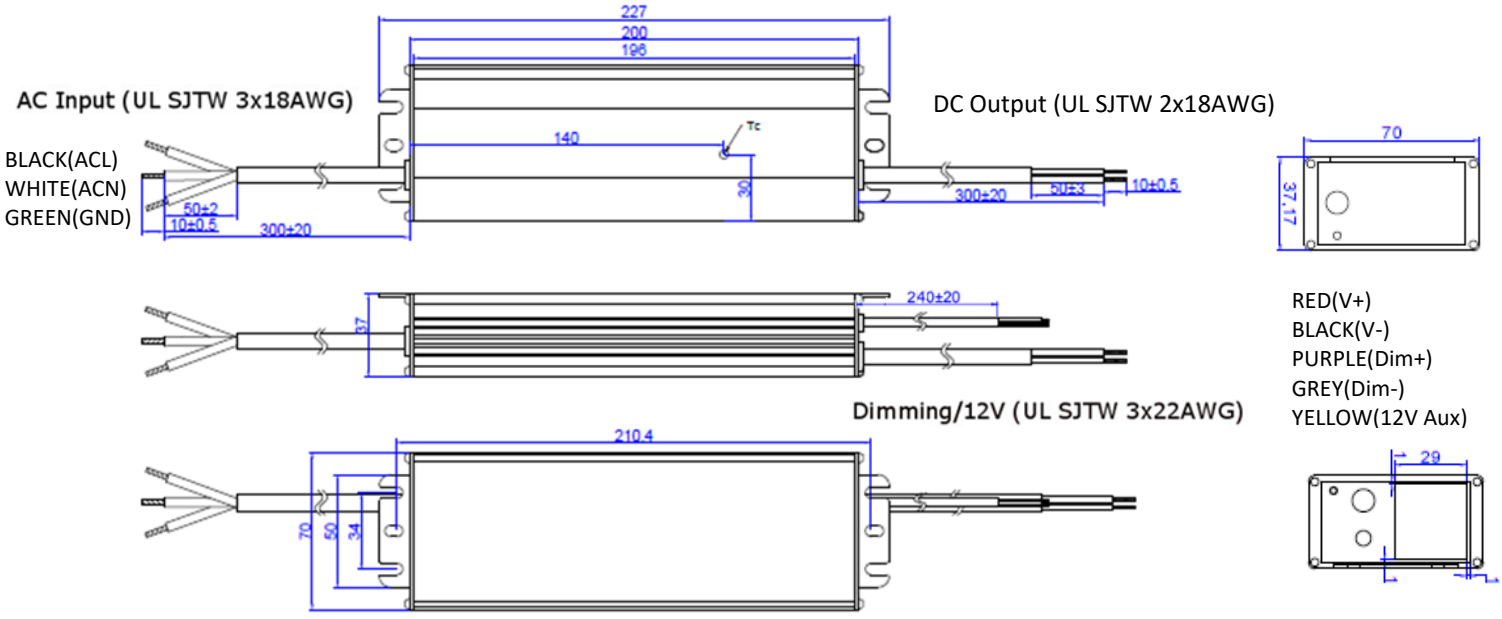
TIMER Dimming

NOTE:

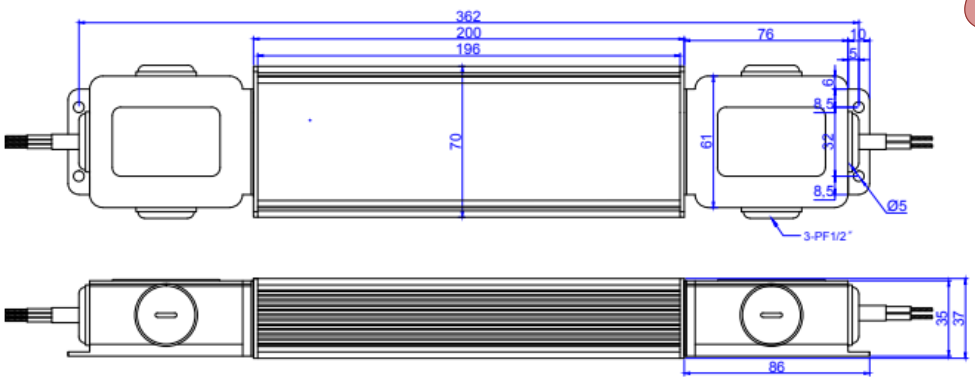
1. The dimming time can be programmed by the programmer.
2. The time of t1 and t2 can be set by the programmer.(0.5h step)
3. The value of I1 and I2 can be set by the programmer.
4. Changing the current from I1 to I2 may take a few min.



■ Mechanical Design



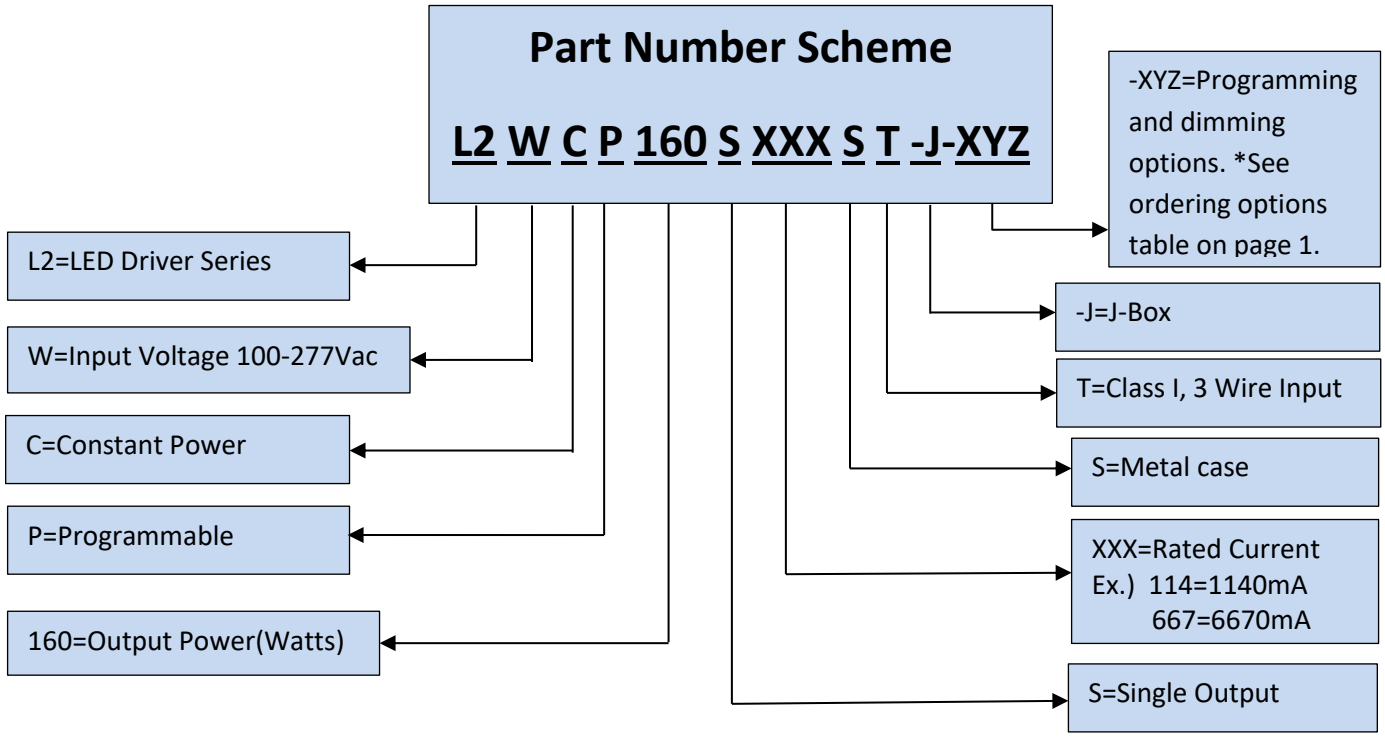
■ Mechanical Design J-Box



Part Number Scheme

L2 W C P 160 S XXX S T-XYZ

- L2=LED Driver Series
- W=Input Voltage 100-277Vac
- C=Constant Power
- P=Programmable
- 160=Output Power(Watts)
- S=Single Output
- XXX=Rated Current
  Ex.) 114=1140mA
  667=6670mA
- S=Metal case
- T=Class I, 3 Wire Input
- -XYZ=Programming and dimming options. *See ordering options table on page 1.



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