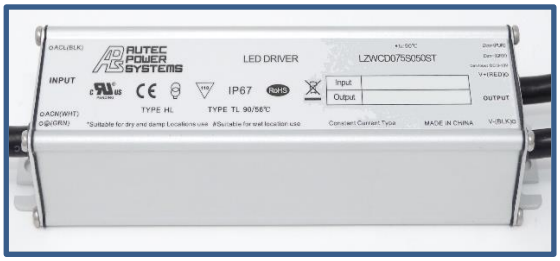
LZWCD075SXXXST-P Series

75W, 100-277Vac Input, Constant Current LED Driver

RoHS Compliant

Features

- Power Rating: 75W
- Input Voltage: 100-277Vac
- Constant current design
- Programmable output current(350mA-2800mA)
- Digital programmability using PC-connected module and software
- Dimming 0-10V, PWM external resistor
- Efficiency to 91%
- UL Class 2 output options available
- OTP, SCP, OVP, and lightning protection
- IP67



IP67 c Type HL us CB CE

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

Application

- Outdoor applications: Street lights, tunnel lights, landscaping lights, garden 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
LZWCD075S050ST-P	100-277Vac	75W	90-214V	350mA	500mA	91%	CE FCC UL
LZWCD075S070ST-P	100-277Vac	75W	64-150V	510mA	700mA	90%	CE FCC UL
LZWCD075S105ST-P	100-277Vac	75W	43-107V	710mA	1050mA	90%	CE FCC UL
LZWCD075S140ST-P	100-277Vac	75W	32-71V	1060mA	1400mA	89%	CE FCC UL
LZWCD075S210ST-P*	100-277Vac	75W	21-53V	1450mA	2100mA	88%	CE FCC UL
LZWCD075S280ST-P*	100-277Vac	75W	16-35V	2150mA	2800mA	88%	CE FCC UL

*Class 2 outputs

Technical Data

Input voltage range	100-277Vac
Frequency	47~63Hz
Power factor	>0.9@60-100%, refer to PF vs Load curve
THD	<20%@60-100%load, refer to THD vs Load curve
Input current	0.95Amax@110Vac & full load, 0.5Amax@230Vac full load
Inrush current	65A peak, 1.2ms duration@230Vac 25℃ 80A
Leakage current	1mA max. @277Vac 60Hz 0.75mAmax @240Vac 50Hz, IEC61347-1
Rated power	75W
Current Accuracy	±5%
Ripple & Noise (pk-pk)	Ip-p: 5%LED Load 60%-100% Load
Turn-on Delay time	1.2s
Output over shoot	10%Io

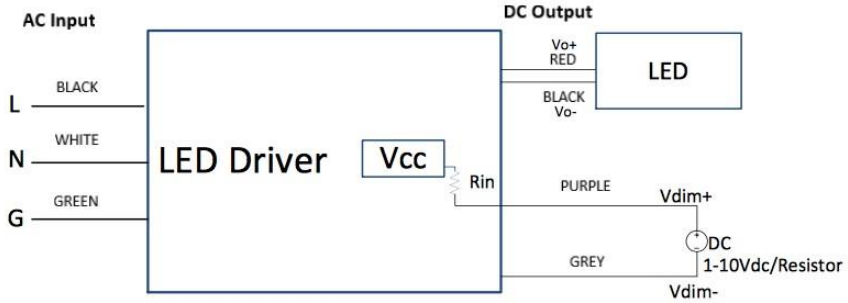
■ Technical Data(cont.)

Output over voltage	135% Vomax
Short circuit protection	Protection type: hiccup mode, recovers automatically after fault condition is removed
Over temperature protection	Decrease output current until over temperature state is removed
Operating temperature	-40 ~ 70°C;
Storage temperature	-40 ~+85°C
Humidity operational	10% ~ 100%RH
Humidity storage	5% to 100%RH
MTBF	>320,000 hours @230Vac & 80% Load
Life rating	>58,000 hours
Maximum case Temperature	90°C
Length (L)	5.71" (145mm)
Width (W)	2.66" (67.5mm)
Height (H)	1.48" (37.5mm)
Weight	720G

Notes:

1. Unless specified, all the test results are measured in the 25°C ambient temperature.
2. The results vary according to different LED load characteristics.
3. Please confirm working conditions according to the derating curve of output power vs. input voltage and temperature. LED driver recommended for its intended use only, do not exceed data sheet specifications.
4. Refer to lifetime vs. Tc curve.
5. Contact Autec Sales for Tc location.

■ Wiring Diagram



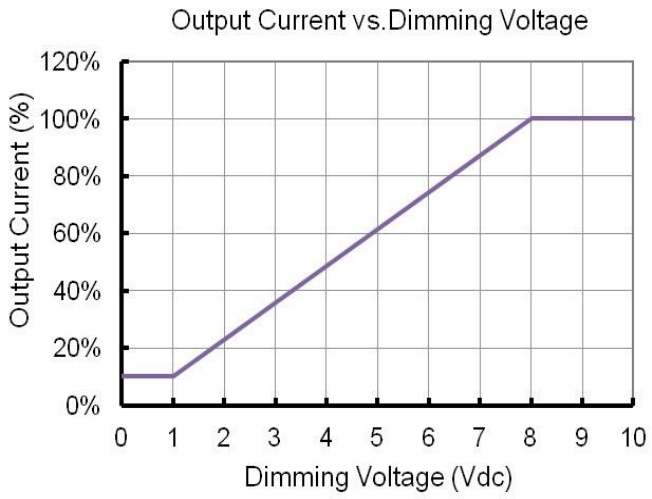
■ Safety Compliance

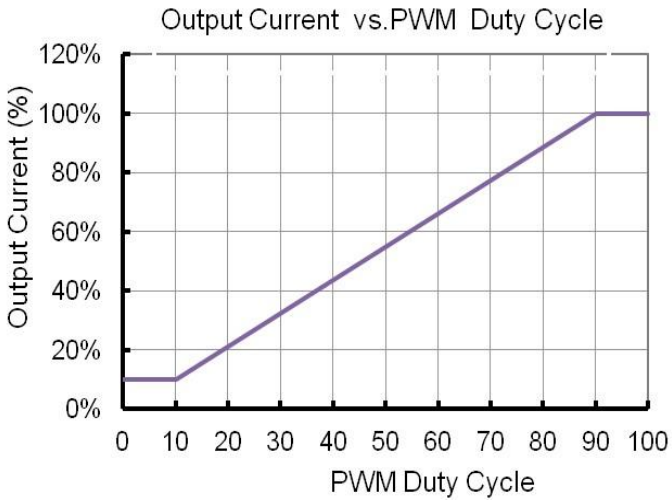
Safety Category	Standard
UL 8750	Light Emitting Diode(LED) Equipment for Use in lighting Products
UL 1012	Power Unit Other Than Class 2
UL 1310	Class 2 Power Units
IEC 61347-1	Lamp Control Gear Part 1: General and Safety Requirements
IEC 61347-2-13	Lamp Control Gear Part 2-13: Particular Requirements for DC or AC Supplied Electronic Control Gear for LED Modules
EMI Standards	**Notes**
IEC 55015	Conducted emission test & Radiated emission test
IEC 61000-3-2	Harmonic current emissions; Class (≥75% load)
IEC61000-3-3	Voltage fluctuations & flicker
FCC Part 15	Class B
EMS Standards	**Notes**
IEC 61000-4-2	Electrostatic discharge (ESD)
IEC 61000-4-3	Radio frequency electromagnetic field susceptibility test (RS)
IEC 61000-4-4	Electrical fast transient (EFT)
IEC 61000-4-5	Surge immunity test L-N:2kV; LN-PE;4kV
IEC 61000-4-6	Conducted radio frequency disturbances test (CS)
IEC 61000-4-8	Power frequency magnetic field test
IEC 61000-4-11	Voltage dips
IEC 61547	Electromagnetic immunity requirements applies to lighting equipment

■ Dimming

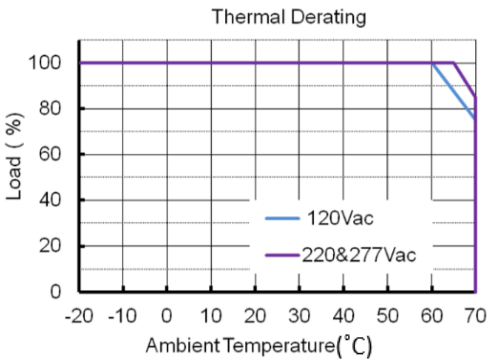
Parameter	Min.	Typ.	Max.
Vcc	-	12.5V	-
Rin	-	50kOhm	-
Absolute maximum voltage range on the 0-10V input pin	-20V	-	20V
0-10V Dimming range	10%(Vdim=0~1V)	-	100%(Vdim=8~10V)
PWM Dimming range	10%(Duty=0-10%)	-	100%(Duty=80-100%)
PWM High	3V	-	10V
PWM Low	0V	-	0.6V
PWM Frequency	300Hz	-	2kHz
External PWM Controller current sinking capability	300uA	-	-

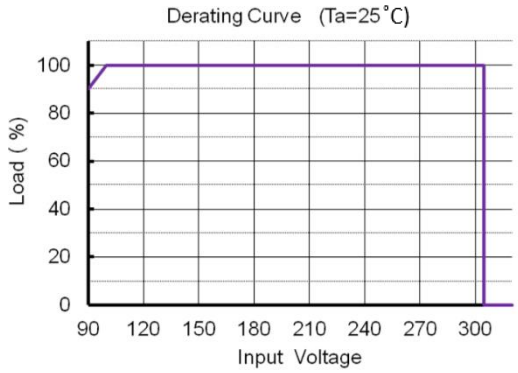
■ Dimming Curve

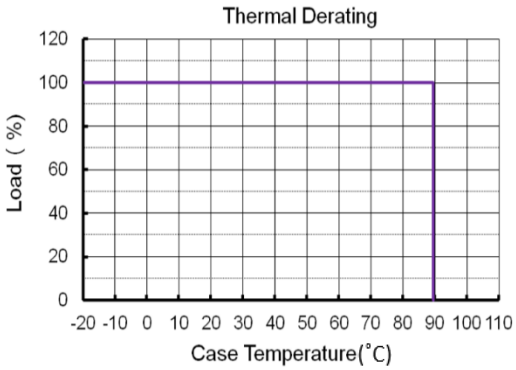




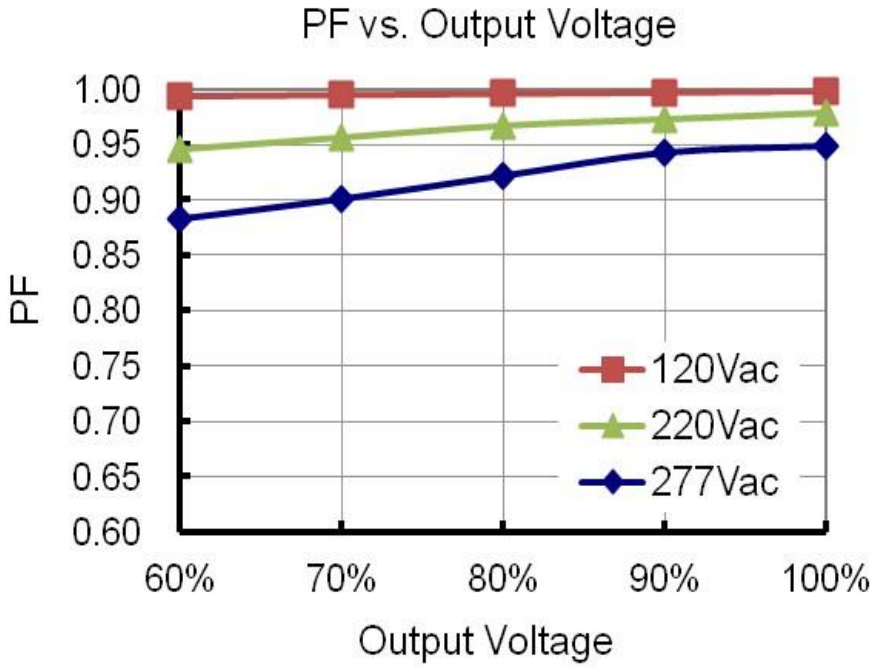
■ Derating Curve



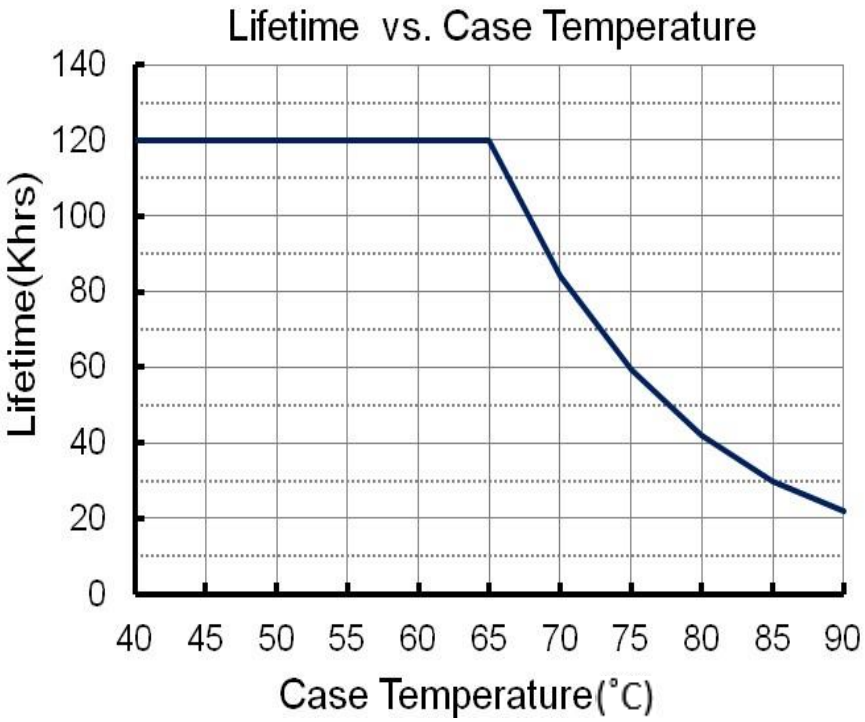




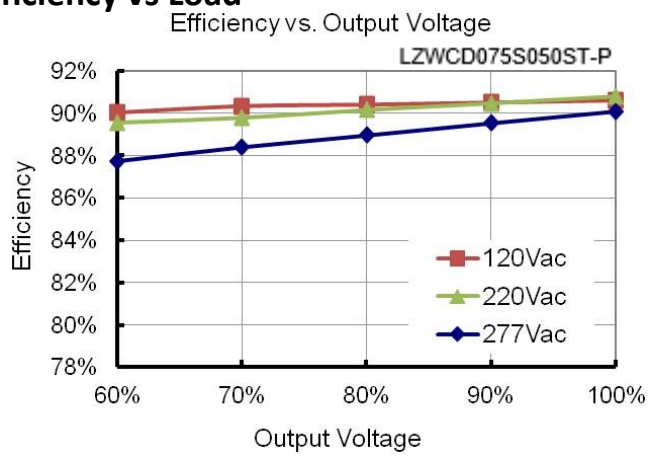
■ Power Factor vs Load

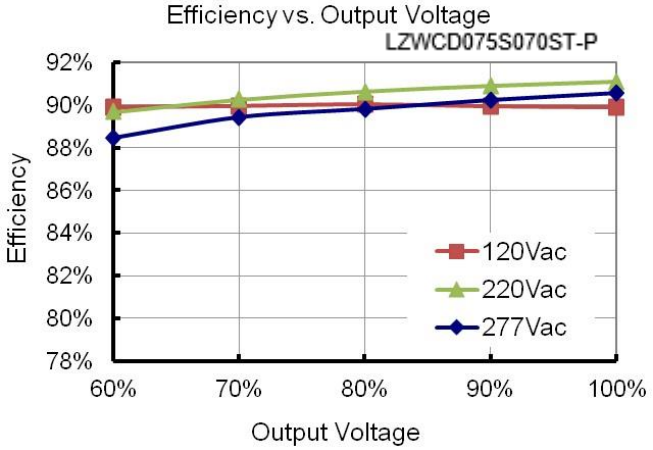


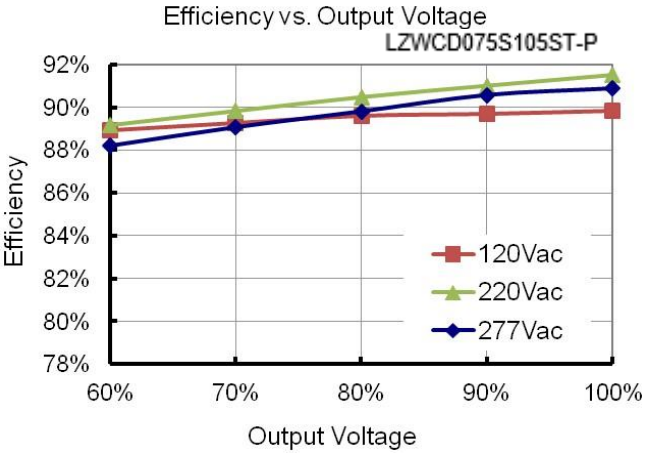
■ Lifetime vs Case Temperature

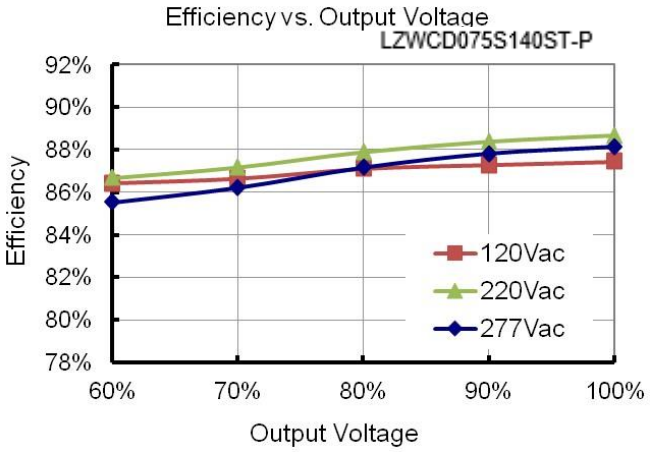


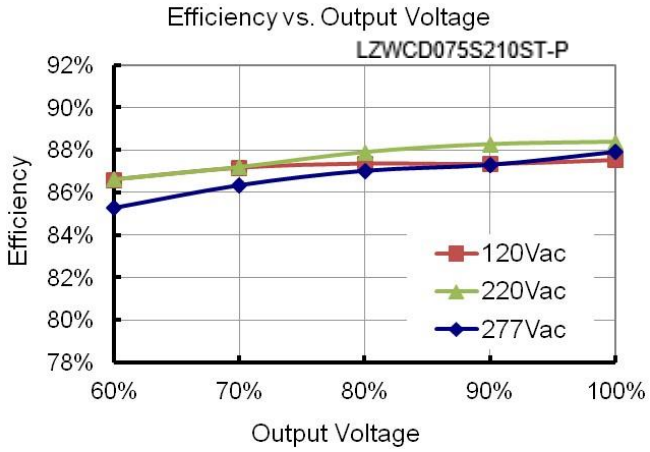
Efficiency vs Load

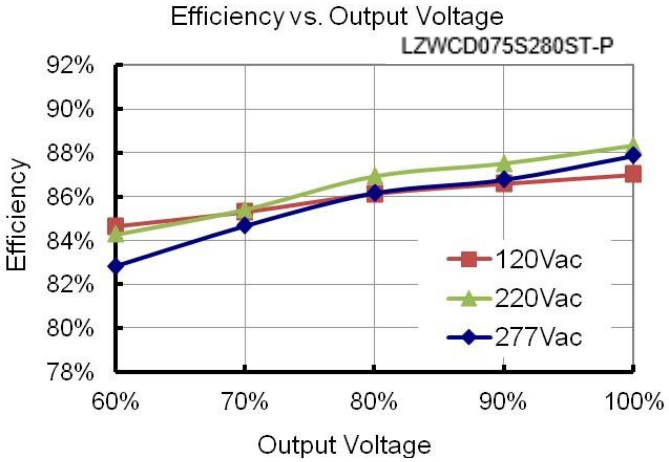




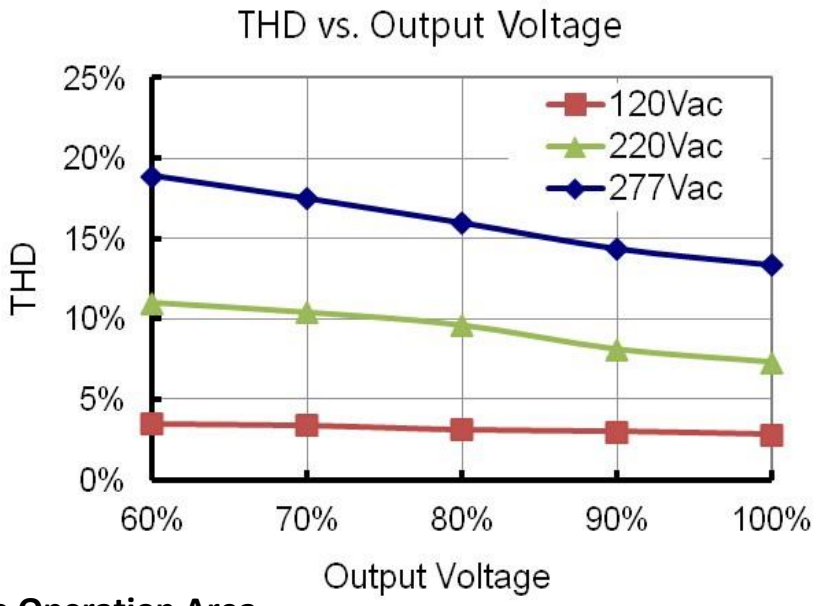






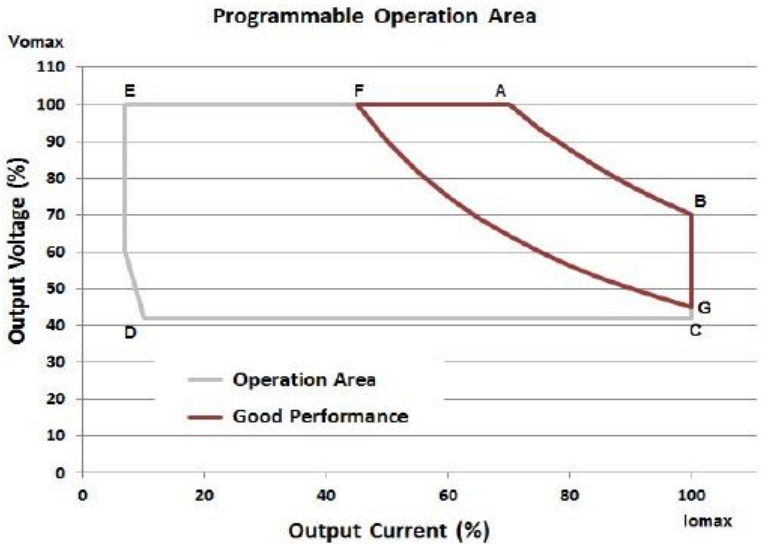


■ THD vs LOAD



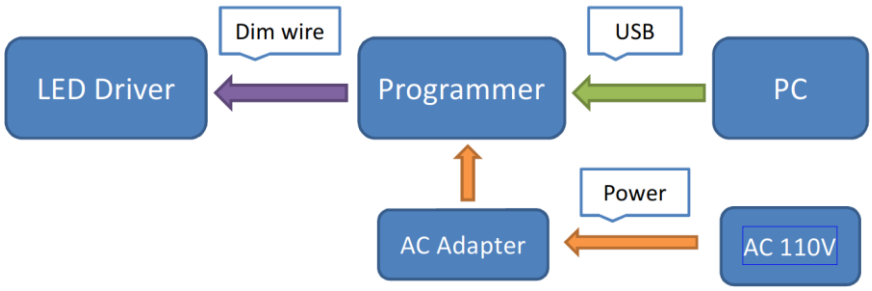
■ Programmable Operation Area

Note: here the points of ABCDE form the operation area, and ABGF form the good performance area.



Model	...075S050ST-P		...075S070ST-P		...075S105ST-P		...075S140ST-P		...075S210ST-P		...075S280ST-P	
Item	Io(mA)	Vo (V)	Io(mA)	Vo (V)	Io(mA)	Vo (V)	Io(mA)	Vo (V)	Io(mA)	Vo (V)	Io(mA)	Vo (V)
A	350	214	500	150	700	107	1050	71	1400	54	2100	36
B	150	150	700	107	1050	71	1400	54	2100	36	2800	27
C	90	90	700	64	1050	43	1400	32	2100	22	2800	16
D	90	90	70	64	105	43	140	32	210	22	280	16
E	214	214	50	150	70	107	105	71	140	54	210	36
F	214	214	300	150	420	107	630	71	840	54	1260	36
G	90	90	700	64	1050	43	1400	32	2100	22	2800	16

■ PC Programming Diagram



NOTES:

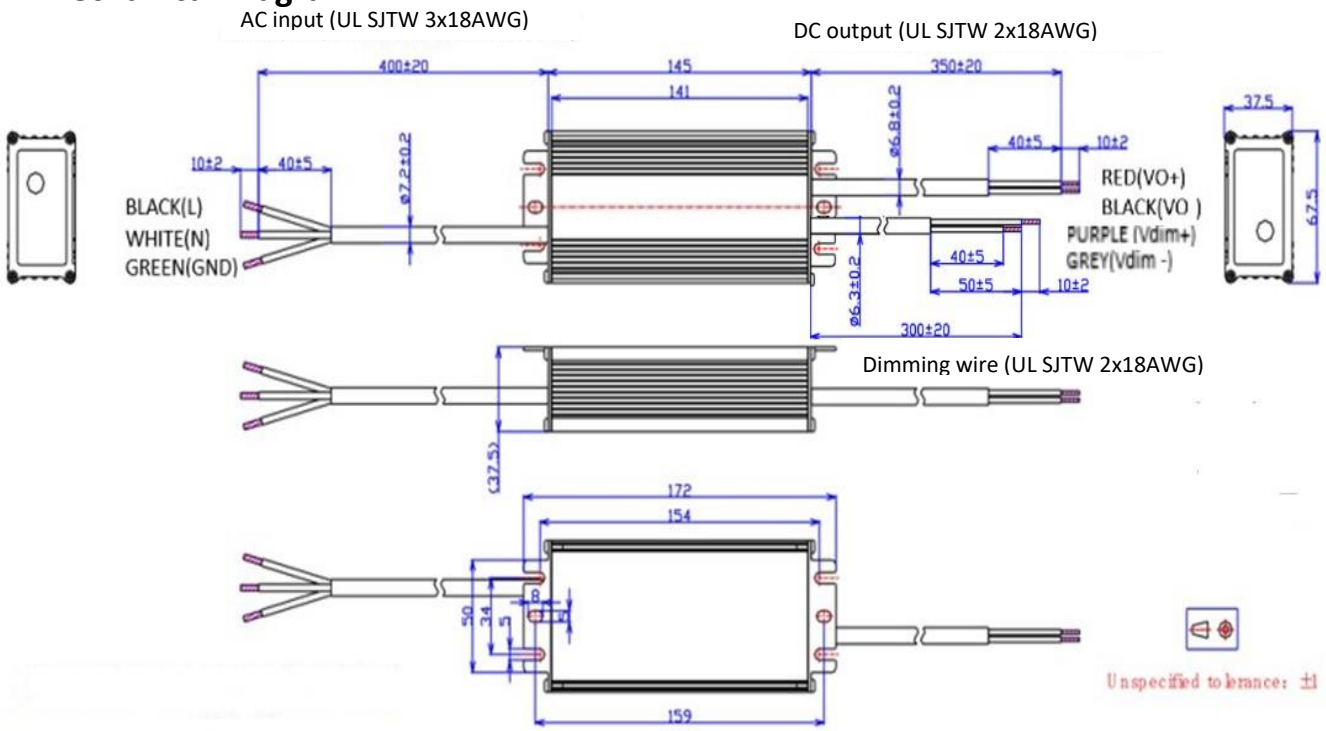
1. To set the desired output current, begin by installing the programming software on your PC and connect the programming module to your PC.

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

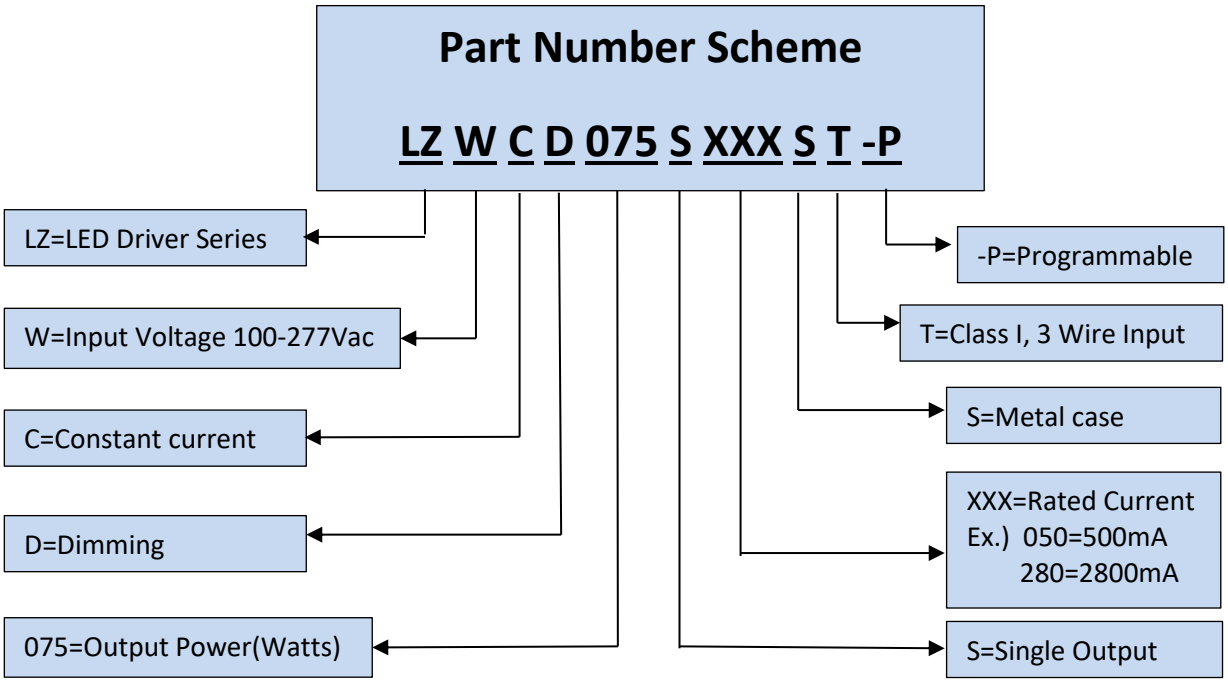
3. Please note an external power source is needed to provide power to the programming module.

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

■ Mechanical Diagram



Note: Please make sure the output cable does not connect to dimming cable or the cables of other drivers until 20 seconds after being tested because of the remained voltage in the output capacitor.



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