

**Not Recommended for New Design (NRND)**

**■ Features**

- Power Rating: 400W
- Input Voltage: 100-277Vac
- Constant current design
- Programmable output current(1400mA-4200mA)
- Digital programmability using PC-connected module and software
- Dimmable 0-10V, PWM, time 4 in 1 dimmable
- Efficiency to 94%
- UL Recognized
- OTP, SCP, OVP, and lightning protection
- IP67

RoHS  
Compliant



IP67    

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

**■ Application**

- Outdoor applications: Street lights, and high bays

**■ 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
LZWCD400S210ST-P	100-277Vac	400W	114-286V	1400mA	2100mA	94%	CE FCC UL
LZWCD400S420ST-P	100-277Vac	400W	57-142V	2800mA	4200mA	93.5%	CE FCC UL

**■ Technical Data**

Input voltage range	100-277Vac
Frequency	47~63Hz
Power factor	>0.9@60-100%, refer to PF vs Load curve
THD	<15%@70-100%load, refer to THD vs Load curve
Input current	3.9Amax@110Vac & full load, 2.5Amax@230Vac full load
Inrush current	65A peak, 1.2ms duration@230Vac 25°C
Leakage current	1mA max. @277Vac 60Hz 0.75mAmax @250Vac 50Hz
Rated power	400W
Current Accuracy	±5%
Ripple & Noise (pk-pk)	Ip-p: 5%Io
Turn-on Delay time	1.2s
Output over shoot	10%Io
Output over voltage	120% Vomax

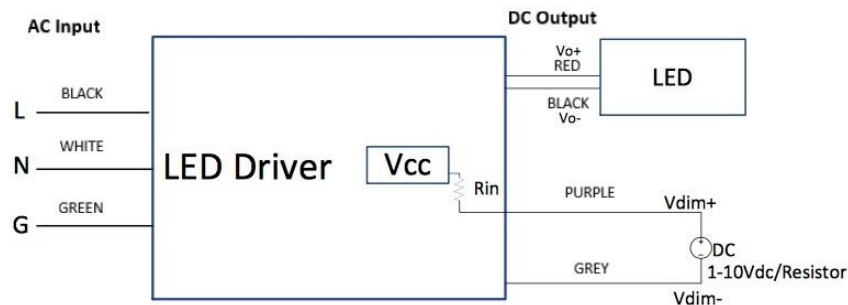
■ **Technical Data(cont.)**

Input Under Voltage	Shut Down When $V_{mains} \leq 85 \pm 5V_{ac}$ ; Auto Recovery When $V_{mains} \geq 90 \pm 5V_{ac}$
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	>280,000 hours @110Vac & 80% Load
Life rating	>50,000 hours
Maximum case Temperature	90°C
Length (L)	8.81" (224mm)
Width (W)	3.54" (90mm)
Height (H)	1.65" (42mm)
Weight	1600g

**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**



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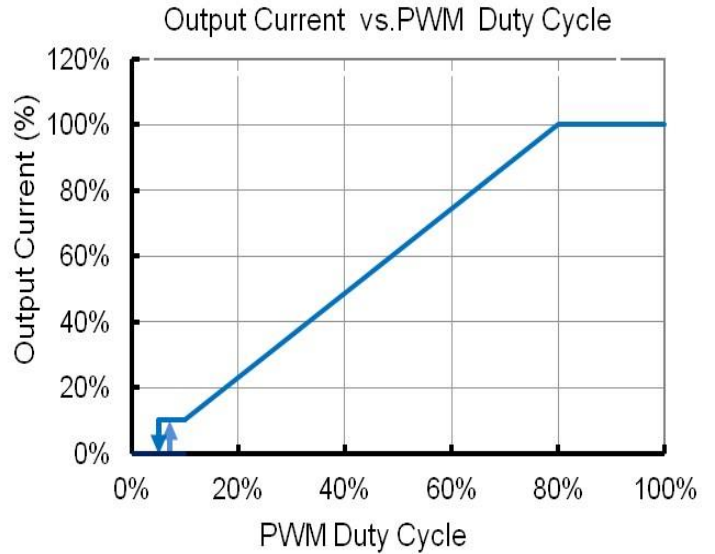
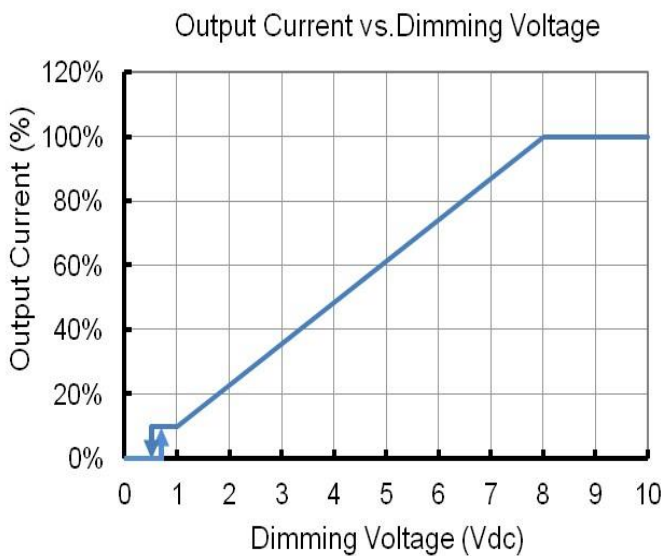
## ■ Safety Compliance

Safety Category	Standard
UL 8750	Light Emitting Diode(LED) Equipment for Use in lighting Products
UL 1012	Power Unit Other Than Class 2
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 ( $\geq 75\%$ load)
IEC 61000-3-3	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

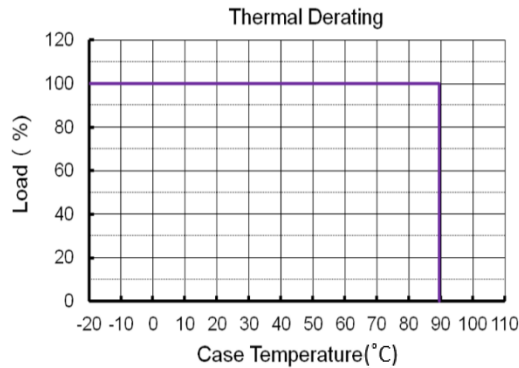
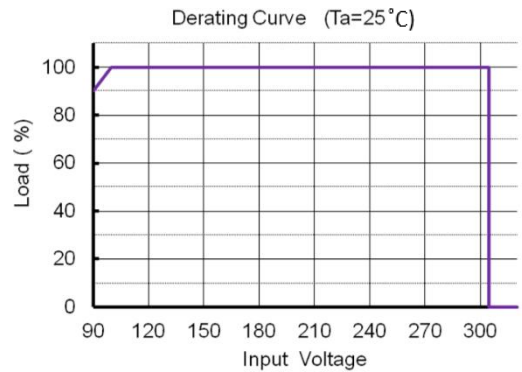
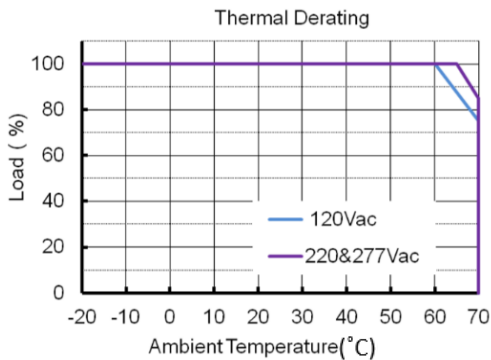
## ■ Dimming

Parameter	Min.	Typ.	Max.
Vcc	-	12V	-
Rin	-	100kOhm	-
Absolute maximum voltage range on the 0-10V input pin	-20V	-	20V
Dimming range	10%	-	100%
Dim off threshold	-	0.5V	-
Dim off hysteresis	-	0.3V	-
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	-	-

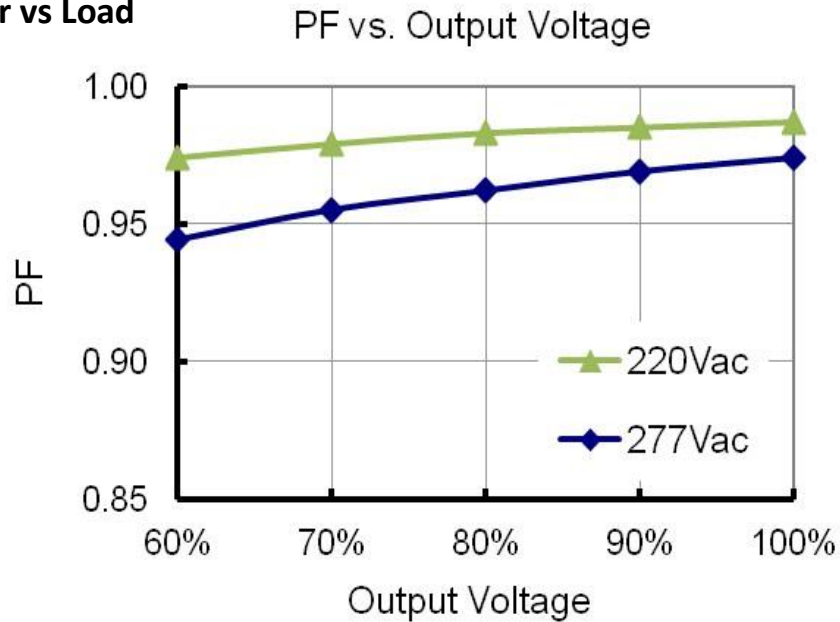
■ **Dimming Curve**



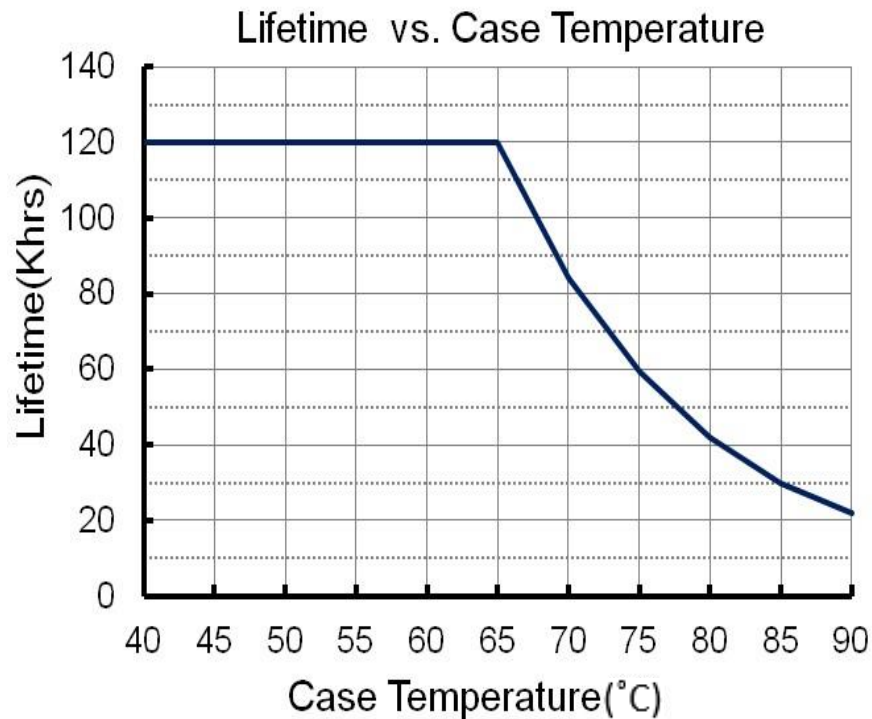
■ **Derating Curve**



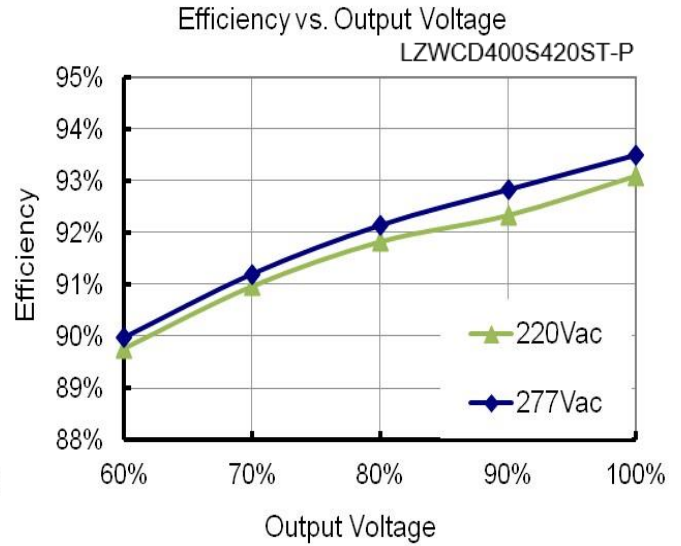
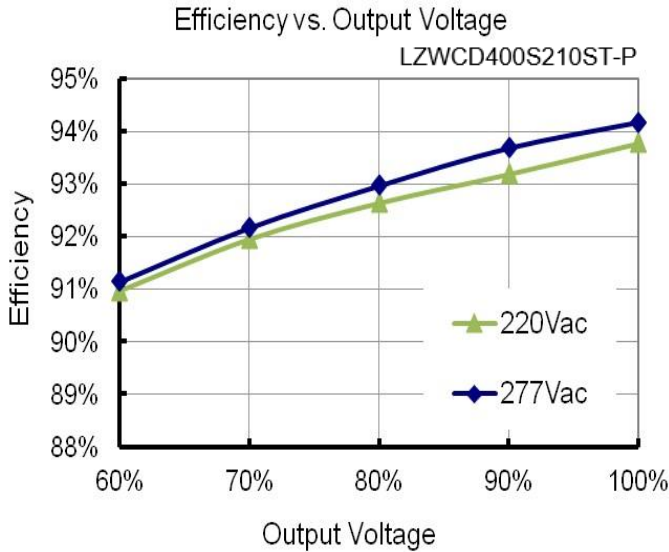
■ Power Factor vs Load



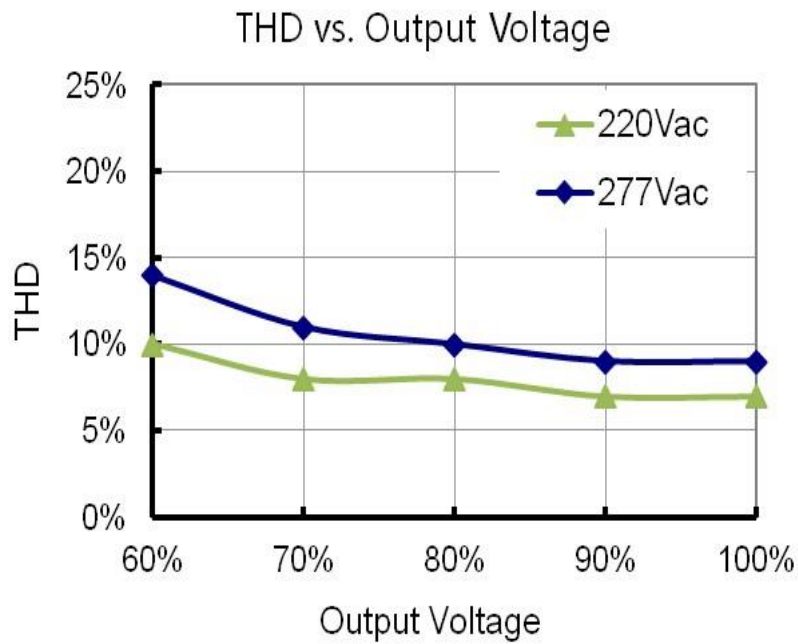
■ Lifetime vs Case Temperature



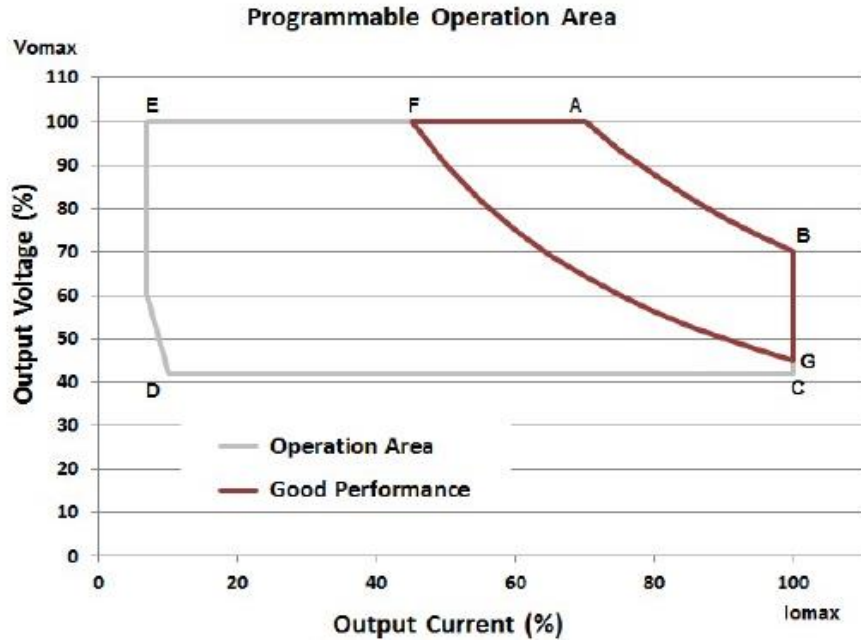
■ **Efficiency vs Load**



■ **THD vs LOAD**



■ Programmable Operation Area

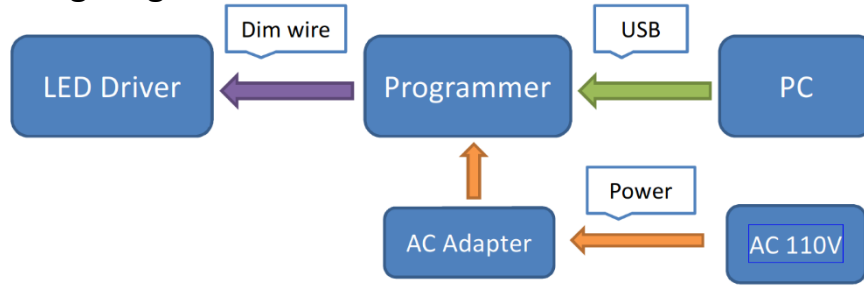


Model	LZWCD400S210ST-P		LZWCD400S420ST-P	
Item	Io(mA)	Vo (V)	Io(mA)	Vo (V)
A	1400	286	2800	143
B	2100	190	4200	95
C	2100	114	4200	57
D	210	114	420	57
E	140	286	280	143
F	840	286	1680	143
G	2100	114	4200	57

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



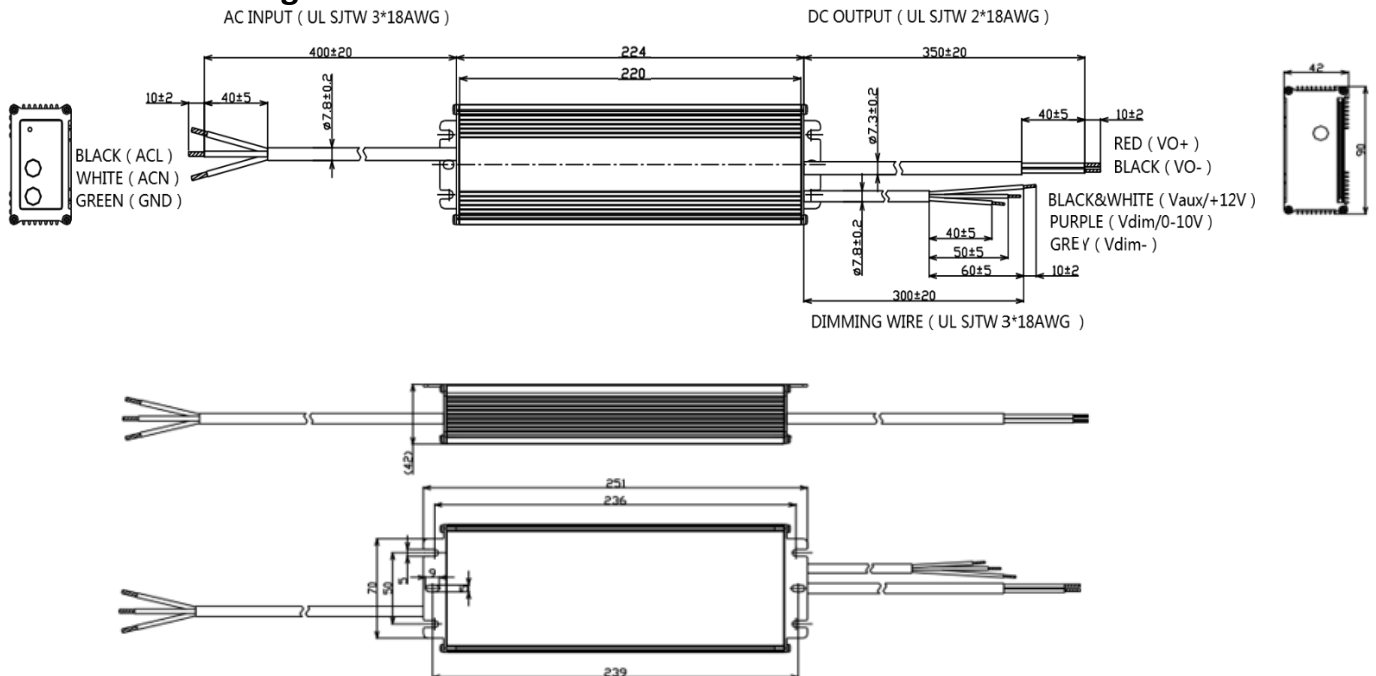
■ PC Programming Diagram



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

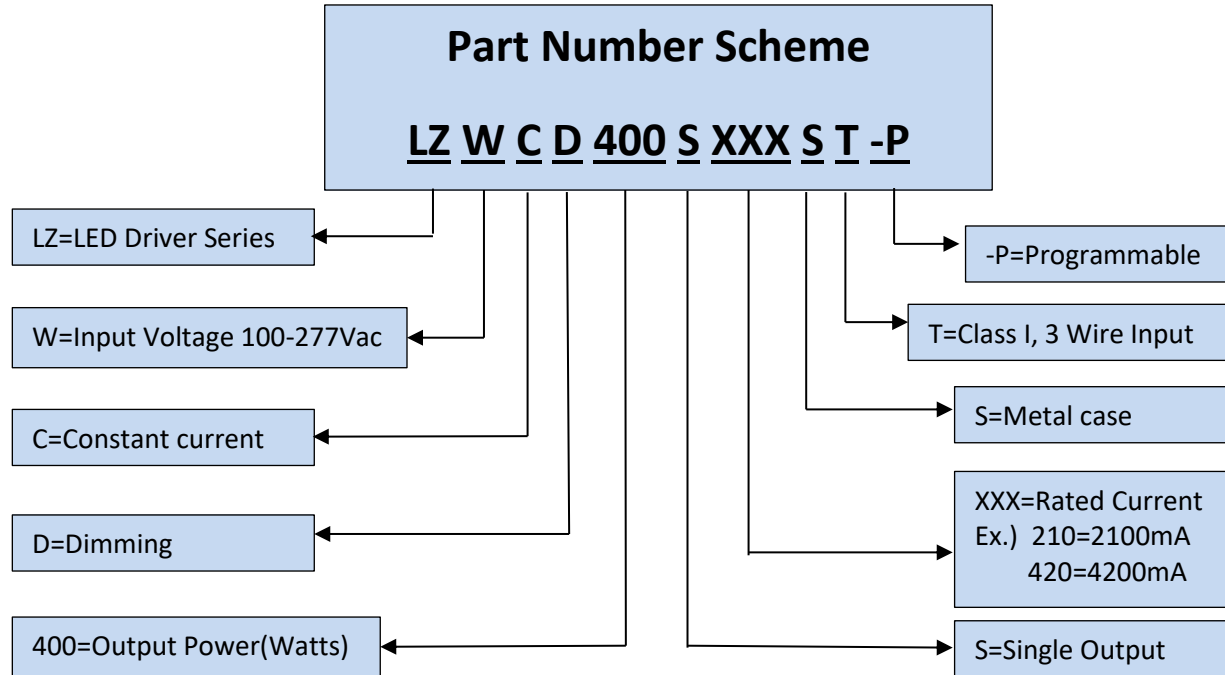


Note: Please make sure the output cable does not connect to dimming cable or the cables of other drivers until 20 seconds after being tested because of the remained voltage in the output capacitor.

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