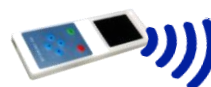


■ =Features

- Power Rating: 680W
- Input Voltage: 120-277Vac
- Constant current and constant voltage hybrid output
- Output current (800mA-20000mA)
- Output current programmable with Near Field Communication controller
- Efficiency to 95%
- Compatible with 0-10V, PWM, Timer, Dim-to-off option, Isolated Dimming, 12V/200mA AUX
- Optional External Thermal Protection NTC
- UL/Class P Type HL
- Lightning, OVP, SCP, OTP, & Over Current Protection
- IP67
- 5-year warranty
- Surge Protection: Diff: 6kV, Common: 10kV



*Near Field Communication controller

RoHS 
Compliant



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

■ Application

- Horticultural grow applications
- 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	Certification
L2WCP680S1420ST-XYZ	120-277Vac	680W	25-48V	5700mA	14200mA	95%	UL/cUL
L2WCP680S1250ST-XYZ	120-277Vac	680W	28-56V	5000mA	12500mA	95%	UL/cUL
L2WCP680S937ST-XYZ	120-277Vac	680W	38-80V	3750mA	9370mA	95%	UL/cUL
L2WCP680S536ST-XYZ	120-277Vac	680W	67-140V	2140mA	5360mA	95%	UL/cUL
L2WCP680S428ST-XYZ	120-277Vac	680W	84-180V	1710mA	4280mA	95%	UL/cUL
L2WCP680S313ST-XYZ	120-277Vac	680W	115-240V	1250mA	3130mA	95%	UL/cUL
L2WCP680S250ST-XYZ	120-277Vac	680W	144-300V	1000mA	2500mA	95%	UL/cUL
L2WCP680S200ST-XYZ	120-277Vac	680W	180-375V	800mA	2000mA	95%	UL/cUL
L2WCP680S160ST-XYZ	120-277Vac	680W	225-460V	400mA	1600mA	95%	UL/cUL

Add -EU for VDE Cable

Ordering options	
XY= Programmable	Z=Dimming
FC=Near Field Communication	D=DALI Dimming
	B=BLE Dimming
-THR=External Thermal Protection NTC Option	
For example L2WCP680SXXXST-XYZ-EU For VDE Cable	

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■ Technical Data

Input voltage range	120-277Vac
Frequency	47-63Hz
Power factor	> 0.95
Output voltage	18-460V
Output power	680W
Max input current	2.6A@277Vac
Efficiency	95%(typ.)
Line Regulation	± 1%
Load Regulation	± 1%
Inrush Current	65A peak, 1.2ms duration@277Vac , <0.25A2s
Dimming	0~10V/ PWM/ Timer, Dim-to-off option
THD	< 20%
Current Programmable	Yes
Over Current Protection	95%-105%; Protection type: Constant current limiting, recovers automatically after fault condition is removed
Short Circuit Protection	Hiccup mode, recovers automatically after fault condition is removed
Over Voltage Protection	1.05Vo, 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~+50°C
Max T-case Temp.	92°C
Operating Humidity	10 ~ 100% RH non-condensing
Storage Temp., Humidity	-40 ~+85°C, 5 ~ 100% RH
Vibration	10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes
Dimensions	284x90x48mm
Dimensions with tabs	305x90x48mm
Packing	4pcs/carton
Weight	2.25kg

■ 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°C / 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

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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.

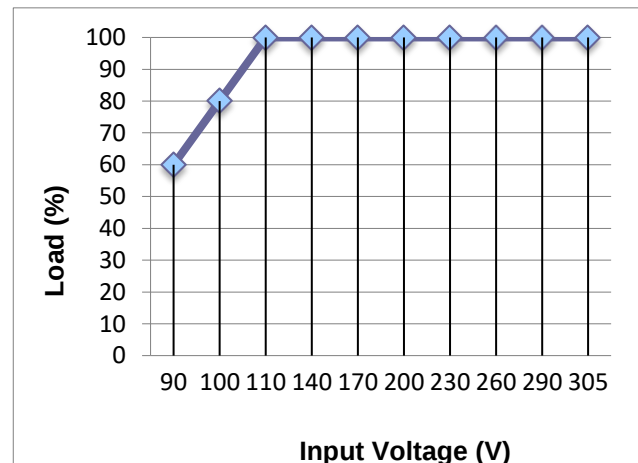
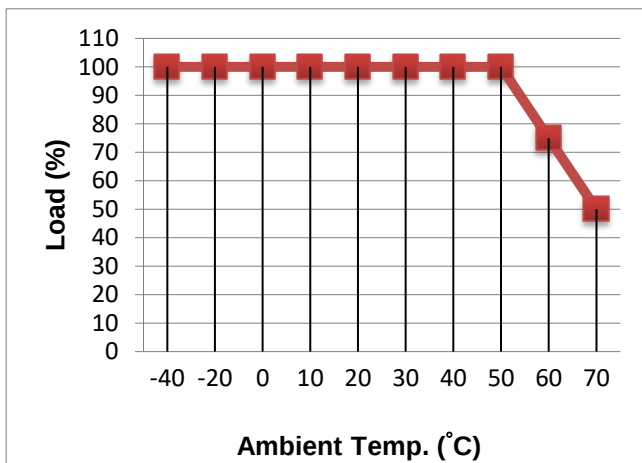
■ **Near Field Communication Controller**



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.

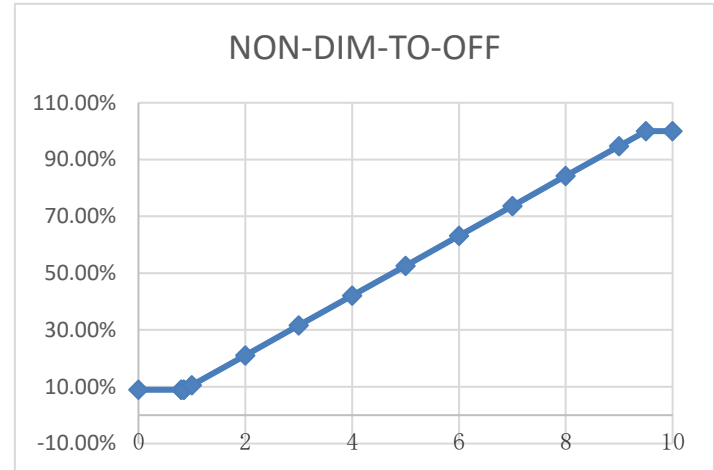
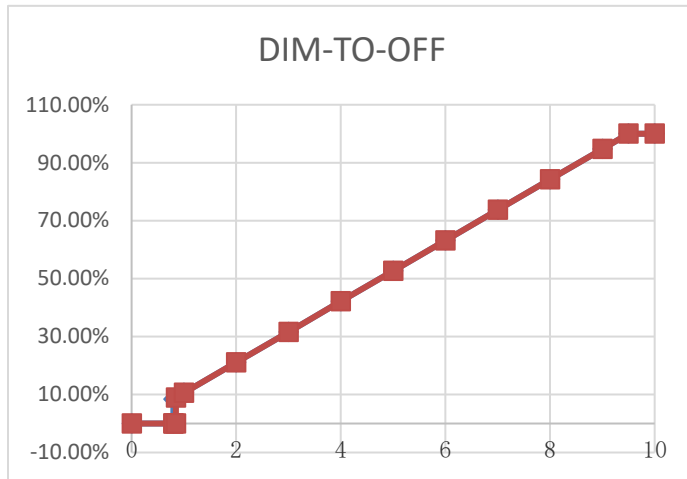
■ **Derating Curve**



Note: The Ta vs Load curve is tested @220vac input and without any extra heatsink. The driver can work at a higher Ta if extra heatsink is mounted, as long as the Tc is below Maximum Tc, the driver will work properly.

■ 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	0.5mA
PWM Frequency Range	0.5-3KHZ
PWM high level	>2.3V
PWM low level	<0.8V
12V Aux output voltage	10-15V
12V AUX Source Current	200mA

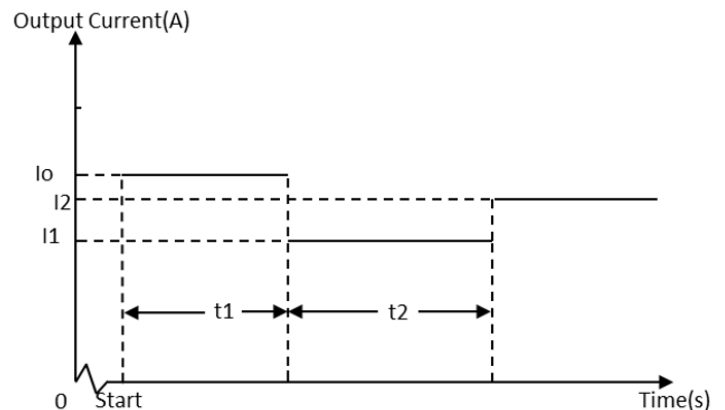
NOTE:

1. I_o is actual output current and I_r 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

■ TIMER Dimming

NOTE:

1. The dimming time can be programmed by the programmer.
2. The time of t_1 and t_2 can be set by the programmer.(0.5h step)
3. The value of I_1 and I_2 can be set by the programmer.
4. Changing the current from I_1 to I_2 may take a few min.



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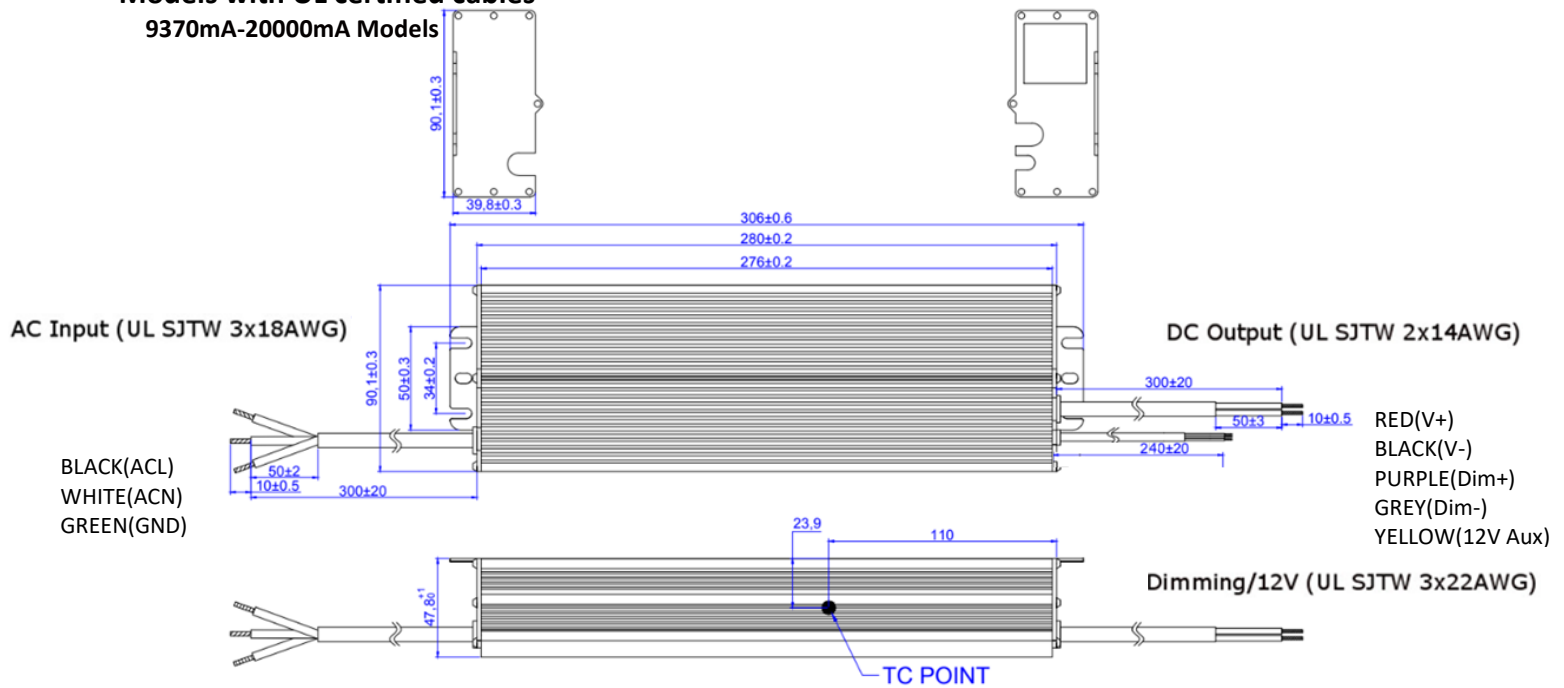
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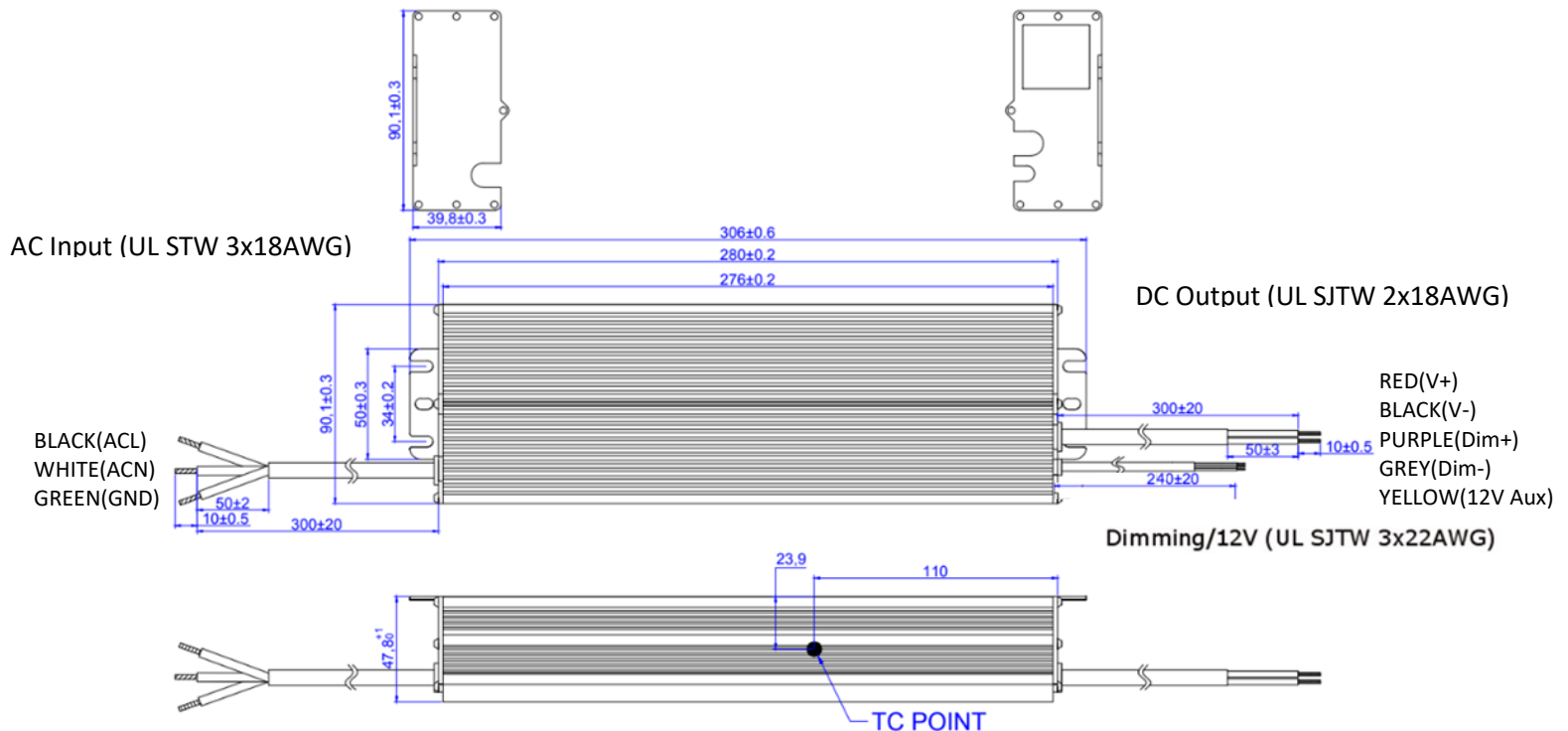
■ **Mechanical Design**

-Models with UL certified cables

9370mA-20000mA Models



1600mA-5360mA Models



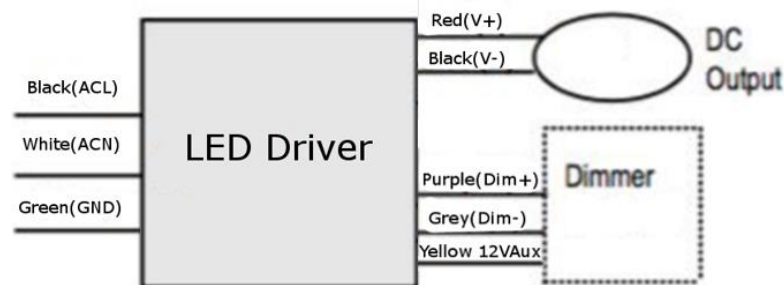
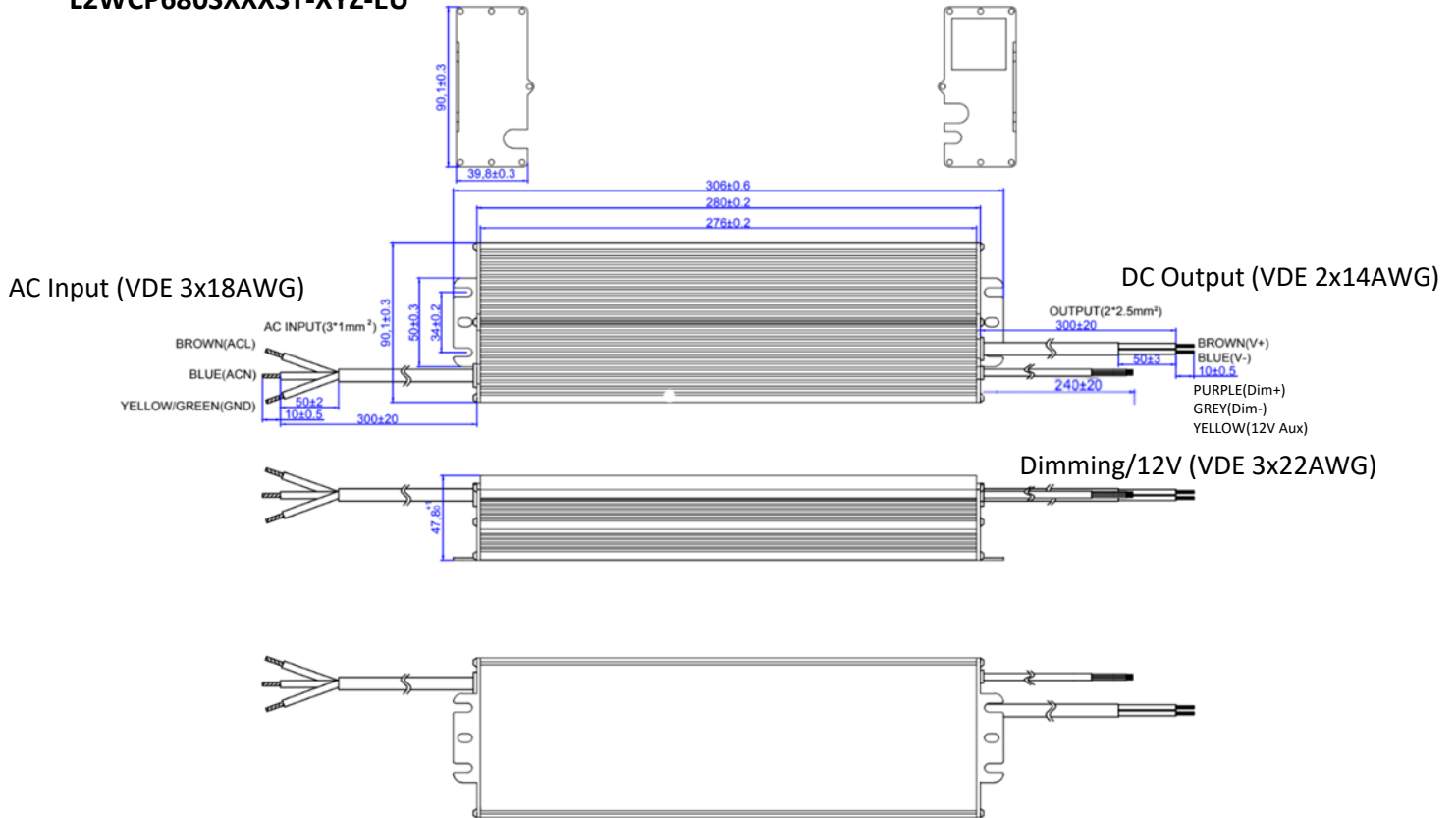
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-Models with VDE certified cables for Europe
L2WCP680SXXXST-XYZ-EU



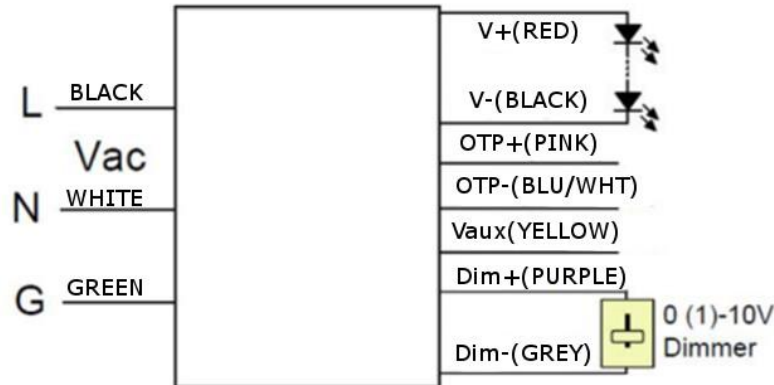
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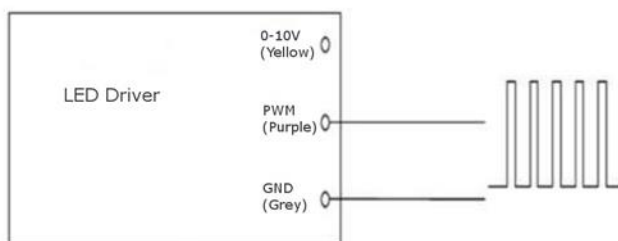
■ Wiring Diagram/Optional External Thermal Protection



■ External Thermal Protection Table(optional)

Parameter	Min.	Typ.	Max.	Notes
External Thermal Protection NTC	R1	-	7.81 kOhm	-
	R2	-	4.16 kOhm	-
	Protection Current Floor	10%loset	60%loset	100%loset
		lomin	60%loset	100%loset
				10%loset>lomin (default setting is 60%)
				10%loset≤lomin (default setting is 60%)

■ PWM Dimming Graph



Part Number Scheme

L2 W C P 680 S XXXX S T -XYZ

L2=LED Driver Series

W=Input Voltage 120-277Vac

C=Constant Power

P=Programmable

680=Output Power(Watts)

S=Single Output

-XYZ=Programming and dimming options.
*See ordering options table on page 1.

T=Class I, 3 Wire In

S=Metal case

XXXX=Rated Current
Ex.) 2000=20000mA
200=2000mA

Part Number Scheme

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