RoHS 2

Compliant



### 75W, 100-277Vac Input, Programmable Constant Power LED Driver

\*Near Field Communication controller

### ■ Features

• Power Rating: 75W

• Input Voltage: 100-277Vac

• Constant current and constant voltage hybrid output

• Output current (300mA-3130mA)

 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
- UL Class P, Type HL, Ce certified, Class 2
- Lightning, OVP, SCP, OTP, & Over Current Protection
- Tc=85°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)



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

Model Number	Input	Output	Output	Output	Output	Efficiency	Certification
Wiodel Nullibel	Voltage Range	Power	Voltage	Current Min.	Current Max.	110V/220V	Certification
L2WCP075S313ST*-XYZ	100-277Vac	75W	24-36V	1250mA	3130mA	87%/88%	CE
L2WCP075S208ST-XYZ	100-277Vac	75W	36-48V	830mA	2080mA	88%/89%	CE
L2WCP075S156ST-XYZ	100-277Vac	75W	48-80V	630mA	1560mA	89%/90%	CE
L2WCP075S094ST-XYZ	100-277Vac	75W	80-140V	380mA	940mA	89%/90%	CE
L2WCP075S054ST-XYZ	100-277Vac	75W	140-214V	210mA	540mA	90%/91%	CE

*Class 2 output. (Add-J for J-Box, Ex.) L2WCP075SXXXST-J-XYZ; Contact Autec Sales for all options.)			
Ordering options			
XY= Programmable	Z=Dimming		
FC-Near Field Communication	<b>D</b> =DALI Dimming		
FC=Near Field Communication	<b>B</b> =BLE Dimming		

## ■ Technical Data

Input voltage range	100-277Vac	
Frequency	47-63Hz	
Power factor	> 0.99 @115Vac & 80~100% Full load, > 0.95 @230Vac & 80~100% Full load	
Output voltage	24-200V	
Output power	75W	
Ripple and Noise	3.0%Vo	
Max input current	0.79A @115Vac, 0.38A@230Vac	



# Technical Data(cont.)

Efficiency	87-92%	
Line Regulation	$\pm$ 0.5%	
Load Regulation	$\pm 3\%$	
Inrush Current	65A @230Vac cold start +25°C	
Dimming	0~10V/ PWM/ Timer, Dim-to-off option	
THD	< 20%	
Current Programmable	Yes	
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.	85°C	
Operating Humidity	10 ~ 100% RH non-condensing	
Storage Temp., Humidity	-40 ~+85°C, 5 ~ 100% RH	
Temp. Coefficient	±0.05%°C (0~50°C)	
Vibration	10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes	
Dimensions	171x70x37mm	
Dimensions(With Tabs)	188x70x37mm	
Packing	25pcs/carton	
Weight	630.3g	

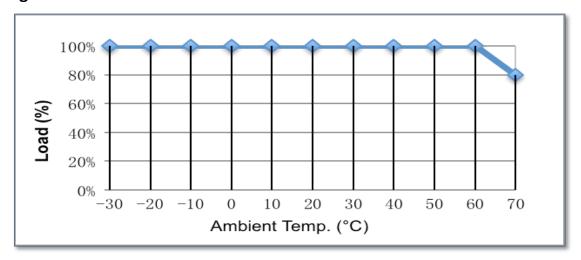
# Safety Compliance

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	

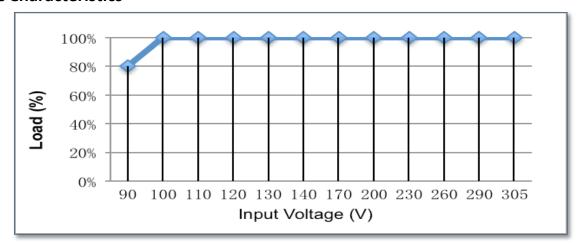
#### Disclaimer:

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.

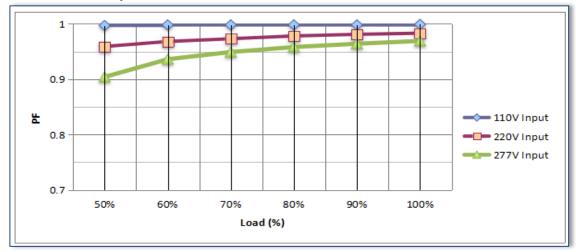
## Derating curve



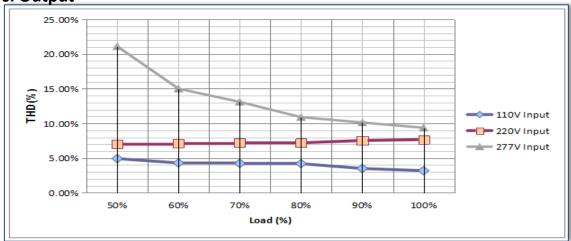
#### **■** Static Characteristics



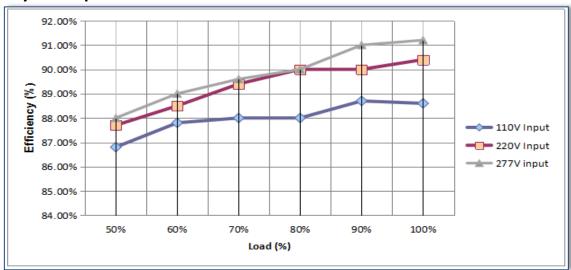
## ■ Power Factor vs. Output



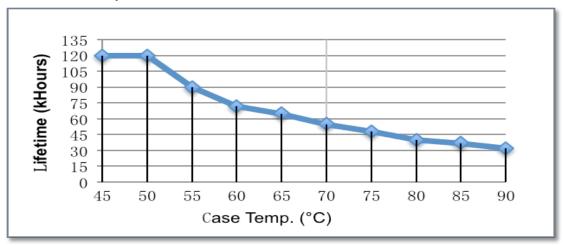
# ■ THD vs. Output



# **■** Efficiency vs Output



# ■ Lifetime vs Case Temp.





## Near Field Communication Controller

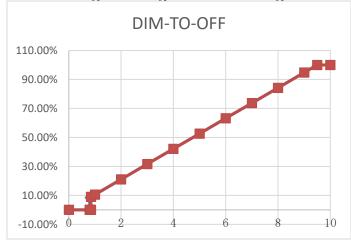


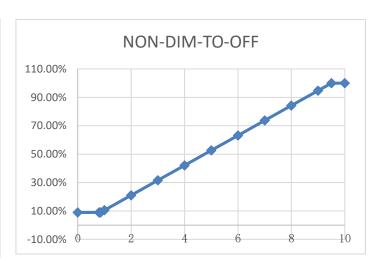
#### NOTE:

- 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





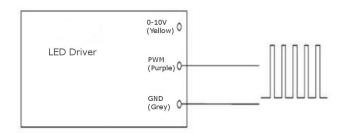
GND	Grey
Dimming wire 0-10V&PWM	Purple
12V AUX	Yellow
Input Dimming Voltage	0-10V
DIM+ Source Current	0-1mA
12V AUX Source Current	200mA
PWM Frequency Range	0.5-3KHZ
PWM high level	10V

#### 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**

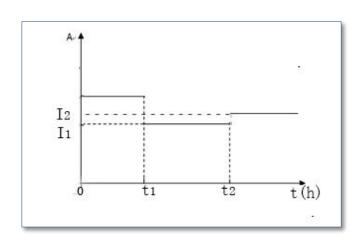




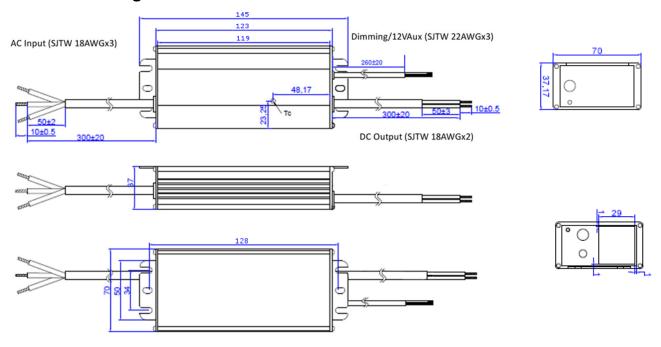
#### **TIMER Dimming**

#### NOTE:

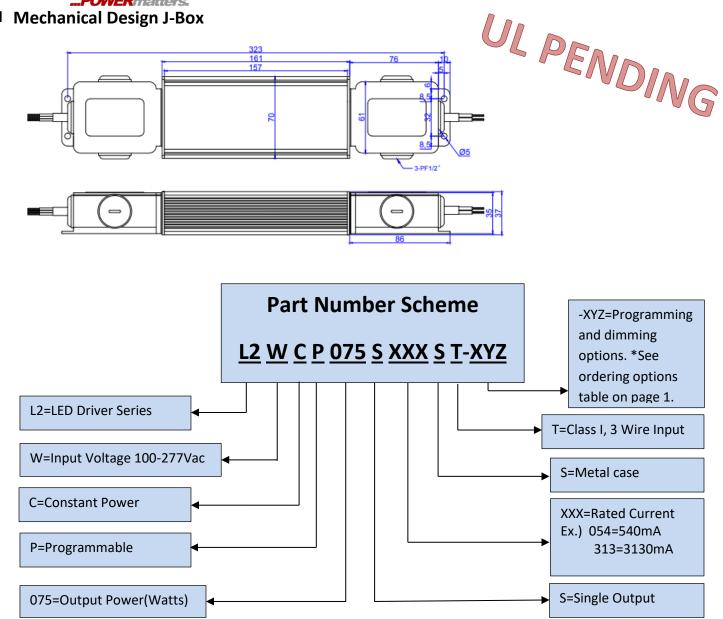
- 1. The dimming time can be programmed by the programmer.
- 2. The time of t1 and t2 can be set by the programmer.(0.5h step)
- 3. The value of I1 and I2 can be set by the programmer.
- 4. Changing the current from I1 to I2 may take a few min.



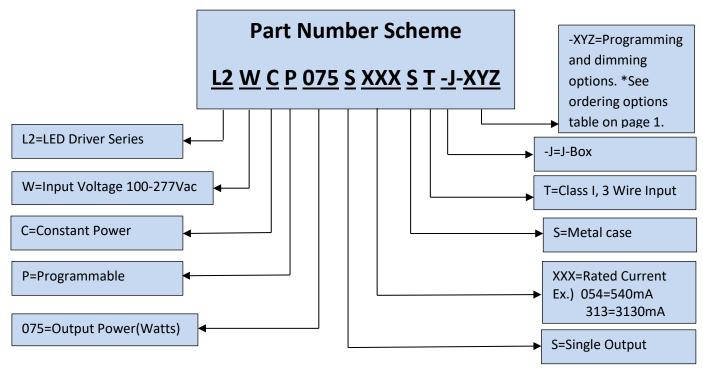
# Mechanical Design











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