L2WCP300 Series

300W, 100-277Vac Input, Programmable Constant Power LED Driver

*Near Field Communication controller

RoHS Compliant

Features

- Power Rating: 300W
- Input Voltage: 100-277Vac
- Constant current and constant voltage hybrid output
- Output current (510mA-12500mA)
- Output current programmable with Near Field Communication controller
- Efficiency to 94%
- Compatible with 0-10V, PWM, Timer, Dim-to-off option, Isolated Dimming, 12V/200mA AUX
- UL/Class P Type HL
- Over Current Protection
- IP67
- 5-year warranty
- Surge Protection: Diff: 6kV, Common: 10kV

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

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 277Vac	Certification
L2WCP300S1250ST-XYZ	100-277Vac	300W	24-36V	5000mA	12500mA	93%	UL/cUL
L2WCP300S830ST-XYZ	100-277Vac	300W	36-48V	3300mA	8300mA	93%	UL/cUL
L2WCP300S625ST-XYZ	100-277Vac	300W	48-80V	2500mA	6250mA	93%	UL/cUL
L2WCP300S375ST-XYZ	100-277Vac	300W	80-140V	1500mA	3750mA	93%	UL/cUL
L2WCP300S214ST-XYZ	100-277Vac	300W	140-233V	860mA	2140mA	94%	UL/cUL
L2WCP300S129ST-XYZ	100-277Vac	300W	233-375V	510mA	1290mA	94%	UL/cUL

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	0.95
Output voltage	24-375V
Output power	300W

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■ Technical Data(cont.)

Max input current	2.78A @120Vac
Efficiency	93-94%
Line Regulation	±0.3%
Load Regulation	±1%
Inrush Current	65A @230Vac cold start +25℃
Dimming	0~10V/ PWM/ Timer, Dim-to-off option
THD	< 20%
Current Programmable	Yes
Over Current Protection	95~108%; Protection type: Constant current limiting, recovers automatically after fault condition is removed
Max T-case Temp.	92˚C
Operating Humidity	10 ~ 100% RH non-condensing
Storage Temp., Humidity	-40 ~+85℃, 5 ~ 100% RH
Vibration	10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes
Dimensions	226x84.1x39mm
Dimensions with tabs	256x84.1x39mm
Packing	12pcs/carton
Weight	1.6kg

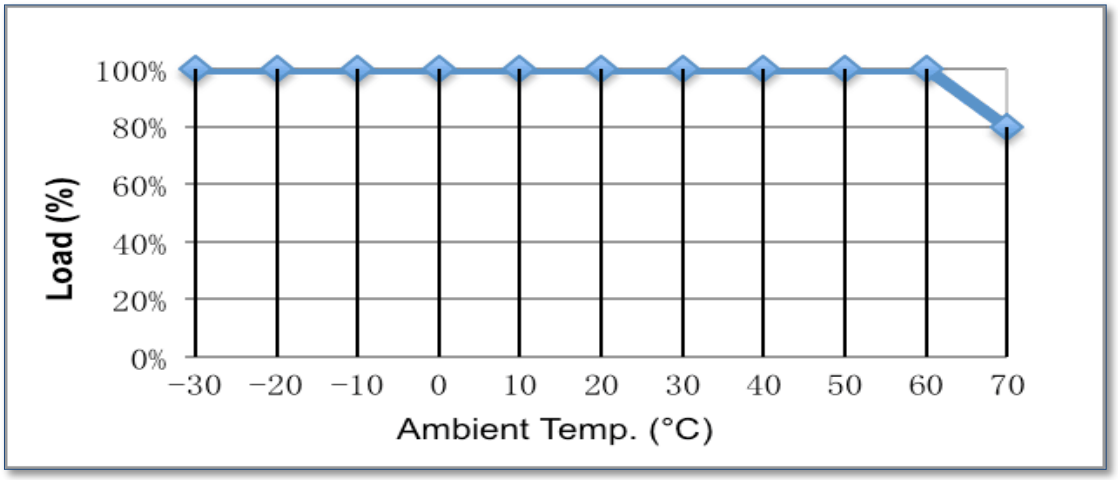
■ Safety Compliance

Disclaimer:

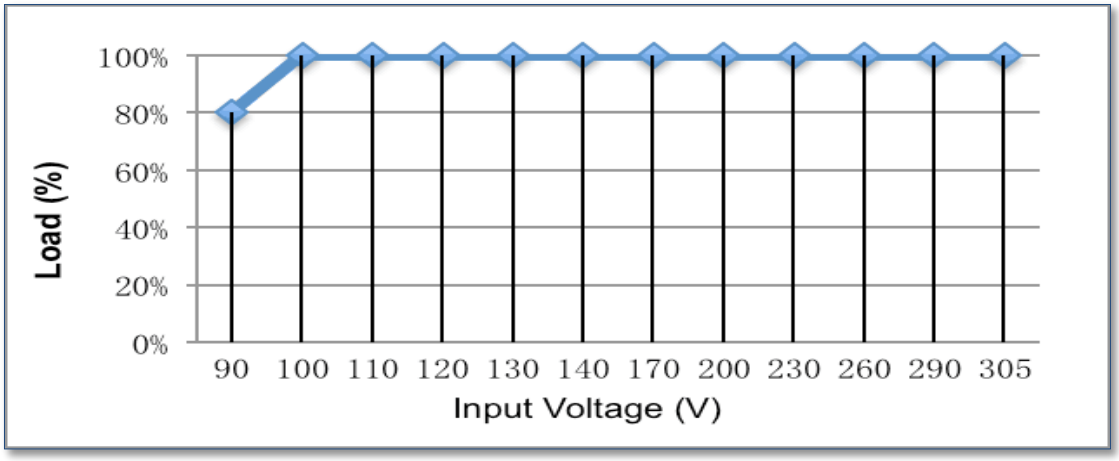
Safety Standards	UL8750, UL935, UL1012, CSA-C22.2 No.107.1, EN61347-1, EN61347-2-13
Withstand Voltage	I/P – O/P: 3.75kVAC
Isolation Resistance	I/P – O/P: 100M Ohms / 500VDC /25℃ / 70% RH
EMC Emission	Compliance to EN55015, EN61000-3-2 Class C (≥60% load); EN61000-3-3
EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11;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

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.

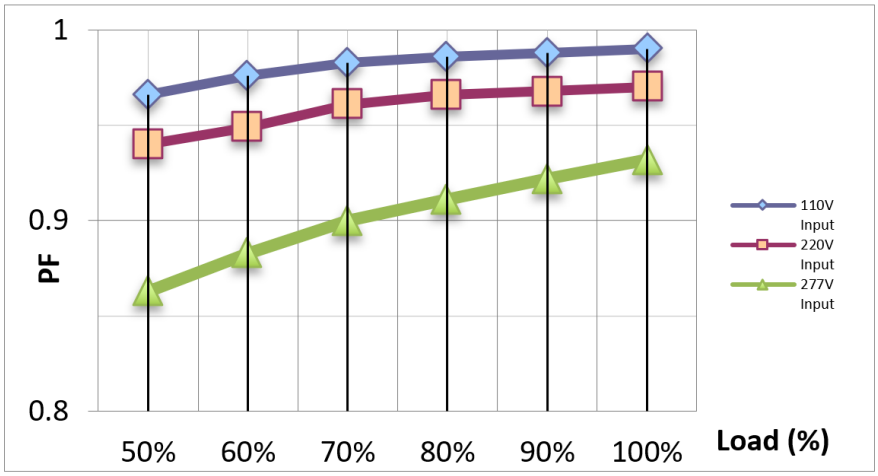
■ Derating curve



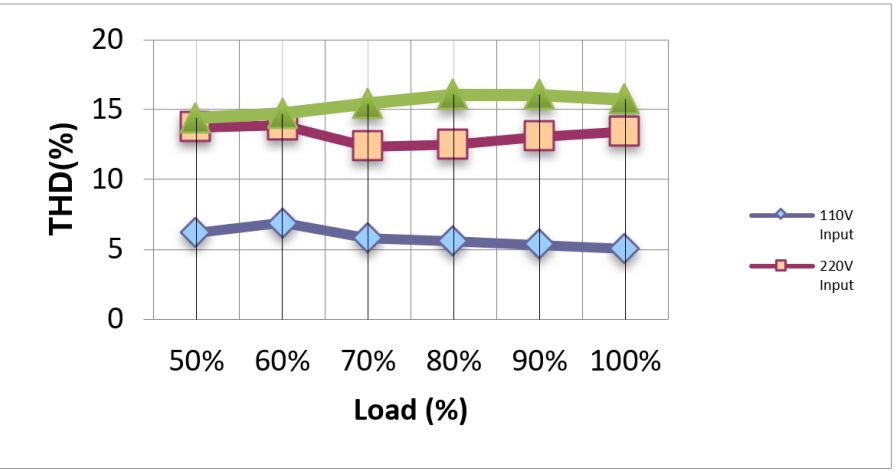
■ Static Characteristics



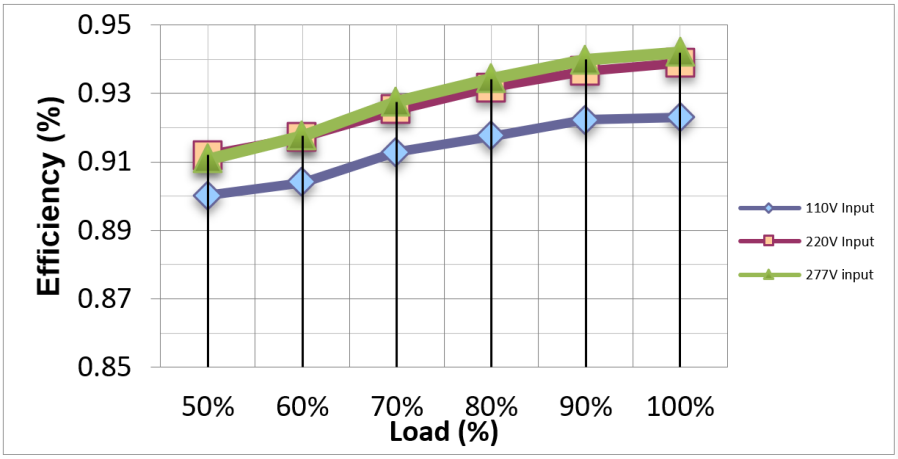
■ Power Factor vs. Output



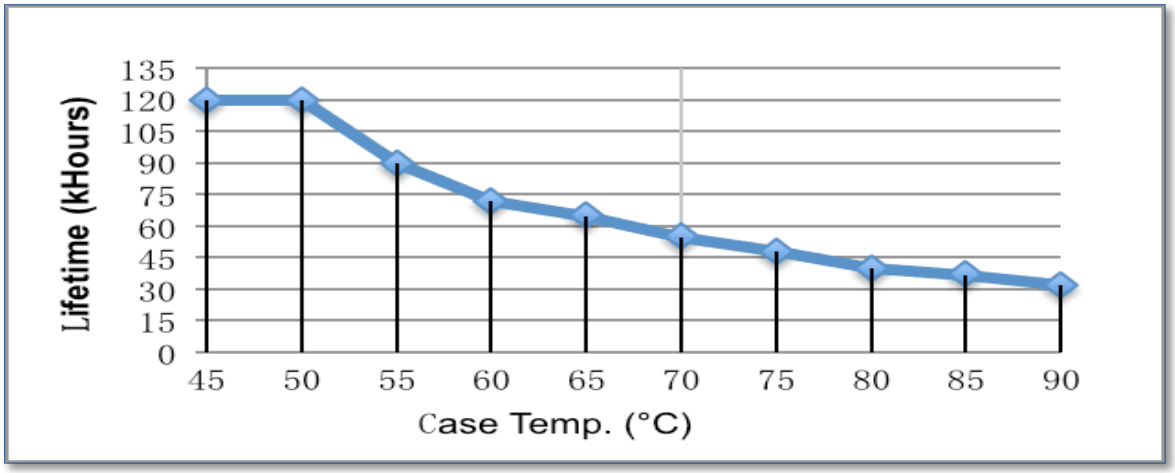
■ THD vs. Output



■ Efficiency vs Output



■ Lifetime vs Case Temp.



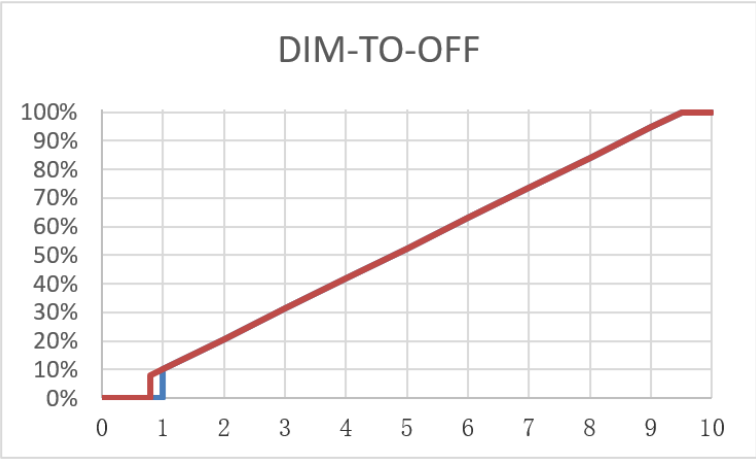
■ Near Field Communication Controller

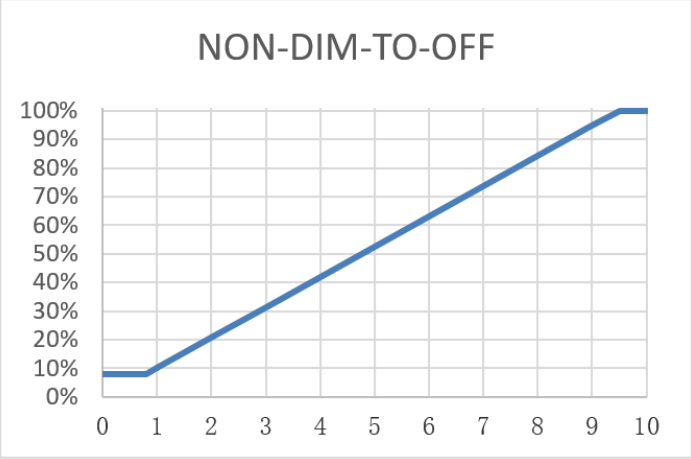
NOTE:

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



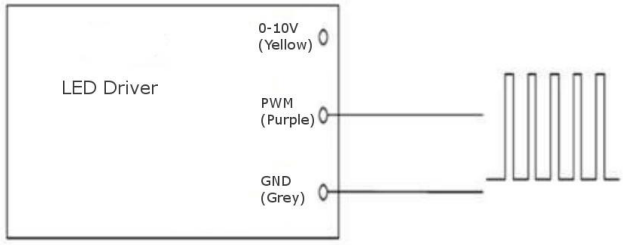


GND	Grey
Dimming wire 0-10V&PWM	Purple
12V AUX	Yellow
Input Dimming Voltage	0-10V
DIM+ Source Current	0-1mA
12V AUX Source Current	200mA
PWM Frequency Range	0.5-3KHZ
PWM high level	10V

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.

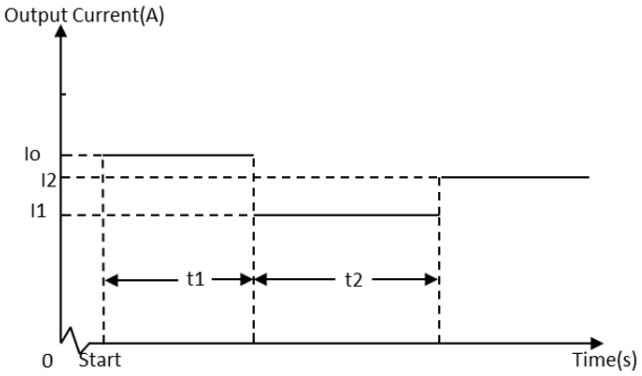
■ PWM Dimming



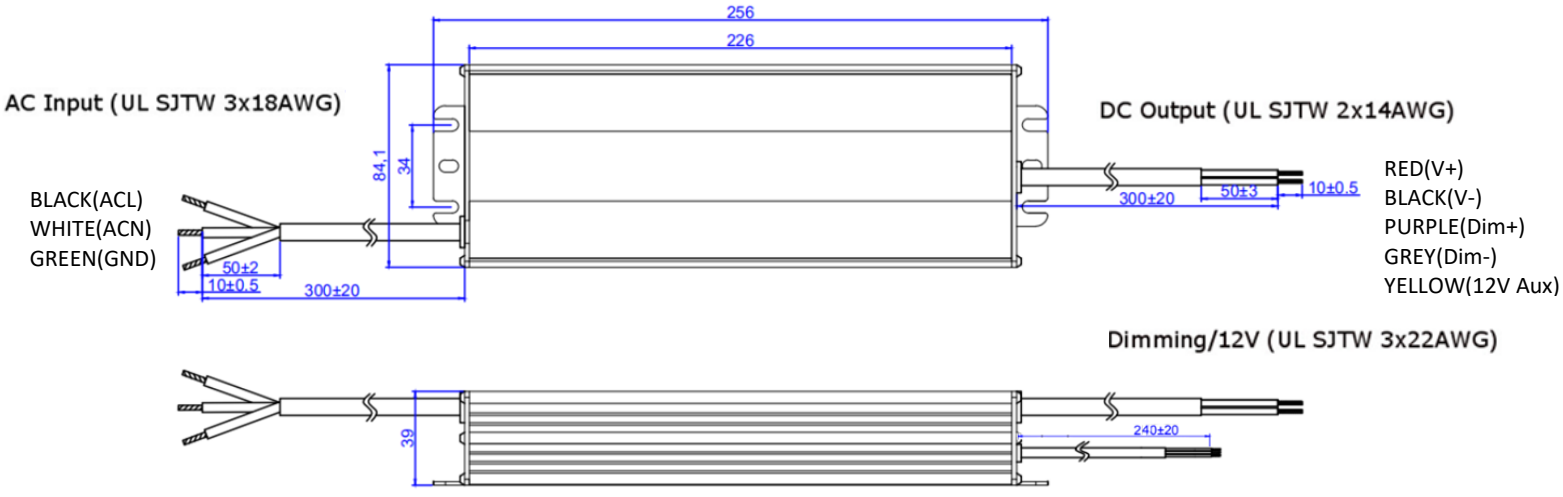
■ TIMER Dimming

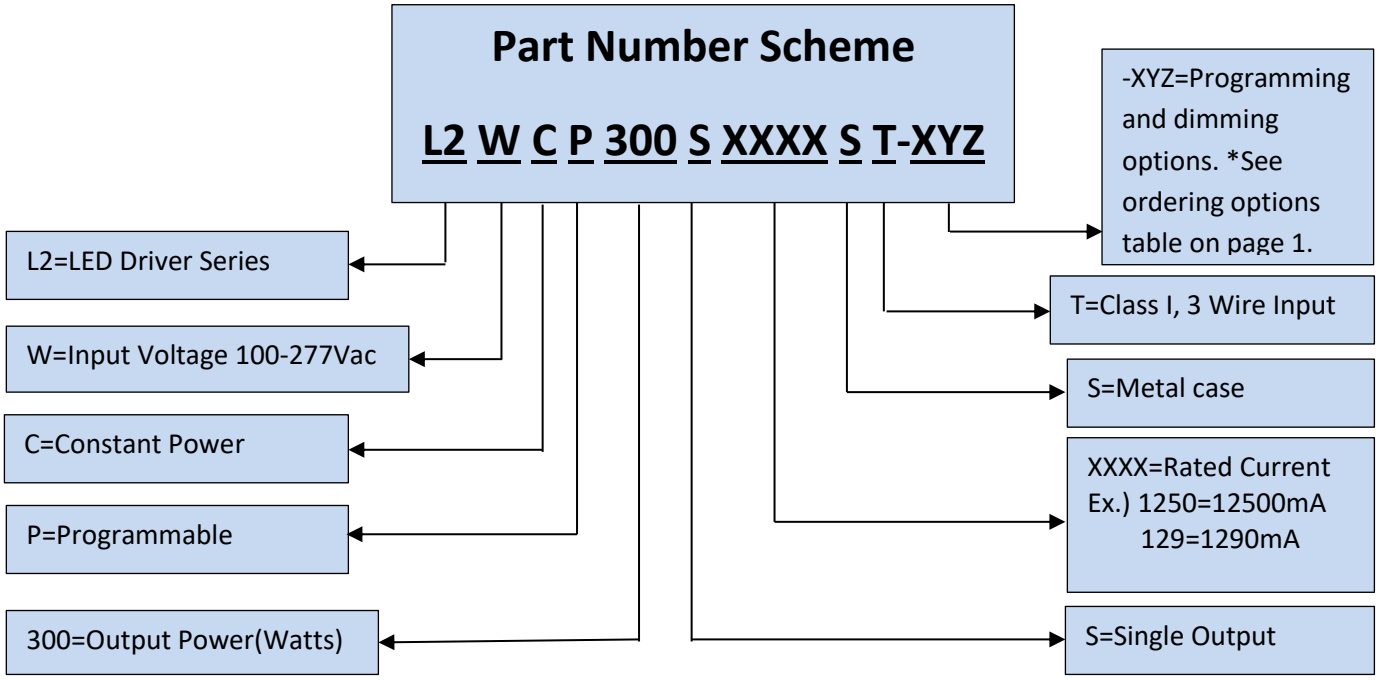
NOTE:

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





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