L2HCP500 Series

500W, 277-480Vac Input, Programmable Constant Power LED Driver

RoHS Compliant

Features

- Power Rating: 500W
- Input Voltage: 277-480Vac
- Constant current and constant voltage hybrid design
- Adjustable Output current (530mA-13900mA)
- Efficiency to 95%
- 0-10V dimming/PWM/Timer Dimming, Dim-to-off
- Programmable with Near Field Communication technology without power to the driver
- 12V 400mA Aux power
- UL Class “P”, and UL Class 2 outputs/Type HL
- OVP, SCP, OTP, & Over Current Protection
- Tc = 90˚C
- 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	Programmable Output Current Region	Efficiency 277V	Certification
L2HCP500S1390ST-XYZ	277-480Vac	500W	18-36V	5.56-13.9A	94%	UL/cUL
L2HCP500S1190T-XYZ	277-480Vac	500W	25-48V	4.76-11.90A	94%	UL/cUL
L2HCP500S1042ST-XYZ	277-480Vac	500W	28-56V	4.17-10.42A	94%	UL/cUL
L2HCP500S781ST-XYZ	277-480Vac	500W	38-80V	3.13-7.81A	94%	UL/cUL
L2HCP500S446ST-XYZ	277-480Vac	500W	67-140V	1.79-4.46A	94%	UL/cUL
L2HCP500S357ST-XYZ	277-480Vac	500W	84-180V	1.43-3.57A	94%	UL/cUL
L2HCP500S260ST-XYZ	277-480Vac	500W	115-240V	1.04-2.6A	94%	UL/cUL
L2HCP500S208ST-XYZ	277-480Vac	500W	144-300V	0.83-2.08A	94%	UL/cUL
L2HCP500S167ST-XYZ	277-480Vac	500W	180-375V	0.67-1.67A	94%	UL/cUL
L2HCP500S133ST-XYZ	277-480Vac	500W	225-460V	0.53-1.33A	94%	UL/cUL

Ordering options	
XY= Programmable	**Z=Dimming**
FC=Near Field Communication	**D=**DALI Dimming
	B=BLE Dimming

Technical Data

Input voltage range	277-480Vac
Frequency	47-63Hz

■ Technical Data(cont.)

Power factor	0.95
Output voltage	18-460V
Output power	500W
Max input current	1.93A @347Vac
Efficiency	94%
Line Regulation	±1%
Load Regulation	±1%
Inrush Current	65A @480Vac cold start +25℃
Dimming	0~10V,PWM,Timer Dim-to-off option
THD	< 20%
Current Programmable	Yes
Output Current Adjustable Range	530-13900mA
Over Current Protection	1.05*Iomax 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	1.05*Vomax, 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˚C ~+50˚C
Max T-case Temp.	90˚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
MTBF	＞200kHrs to MIL-HDBK-217 at25℃, GB
Dimensions	306x90.1x47.9mm
Packing	2.25g
Weight	4pcs/carton

■ Safety Compliance

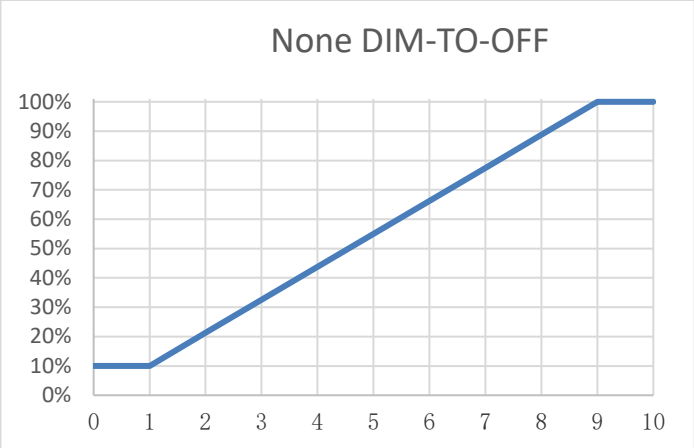
Safety Standards	UL8750, UL935, UL1012, CSA-C22.2 No.107.1, EN61347-1, EN61347-2-13
Withstand Voltage	I/P – O/P: 3.75kVAC
Isolation Resistance	I/P – O/P: 100M Ohms / 500VDC /25℃ / 70% RH
EMC Emission	Compliance to EN55015, EN61000-3-2 Class C (≥60% load); EN61000-3-3
EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11;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

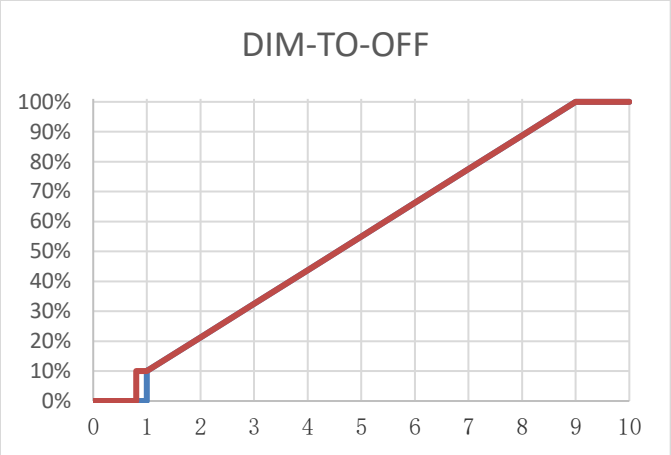
Disclaimer:

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.

■ Dimming

0-10V Analog Dimming





GND	Green
Dimming wire 0-10V & PWM	Purple
12V AUX	Yellow
Input Dimming Voltage	0-10V
DIM+ Source Current	0.5mA
PWM Frequency Range	0.4-10KHZ
PWM high level	>2.3V
PWM low level	<0.8V
12V AUX Output Voltage	10-15V
12 AUX Source Current	400mA

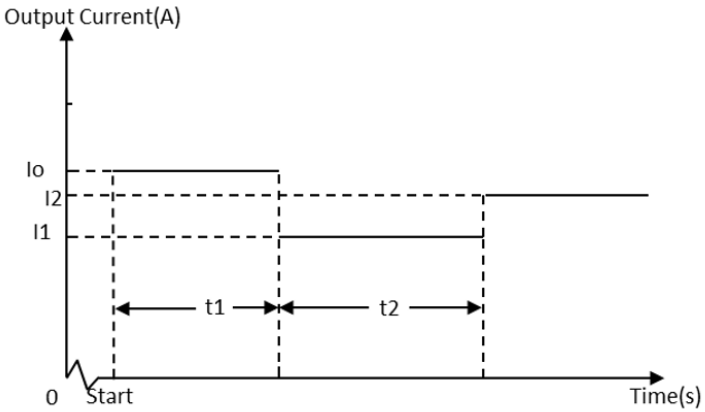
NOTE:

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.

■ 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.

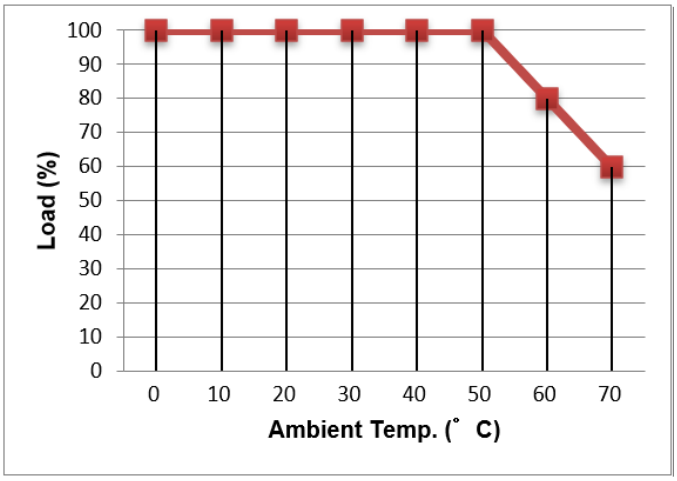


■ Near Field Communication Controller

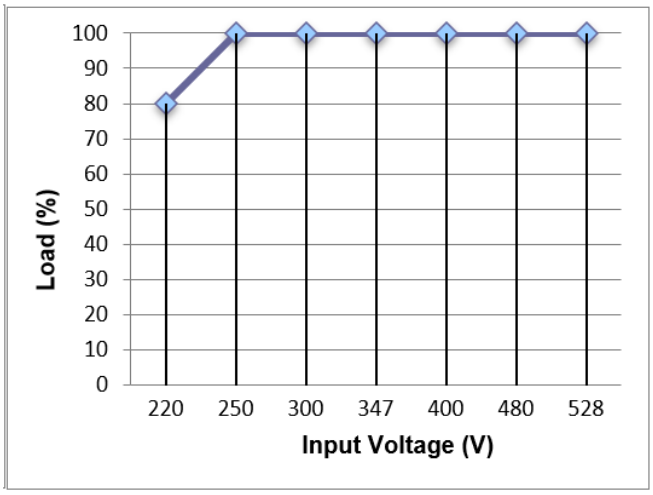
NOTE:

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.

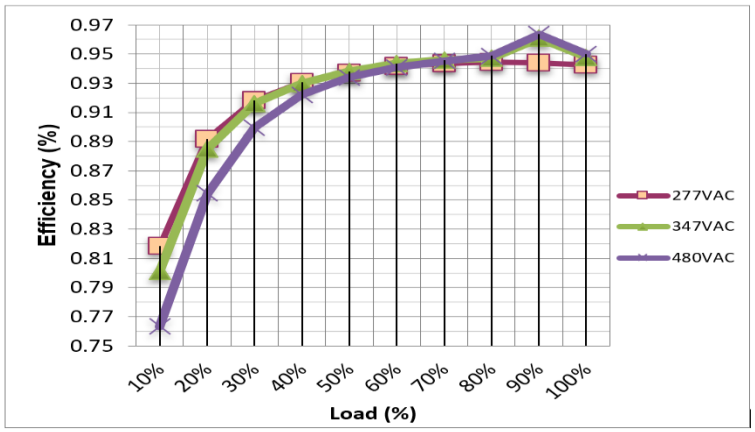
■ Derating Characteristics



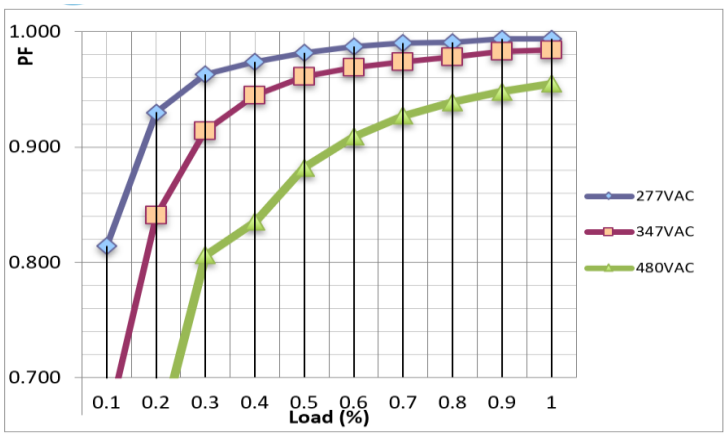
■ Static Characteristics



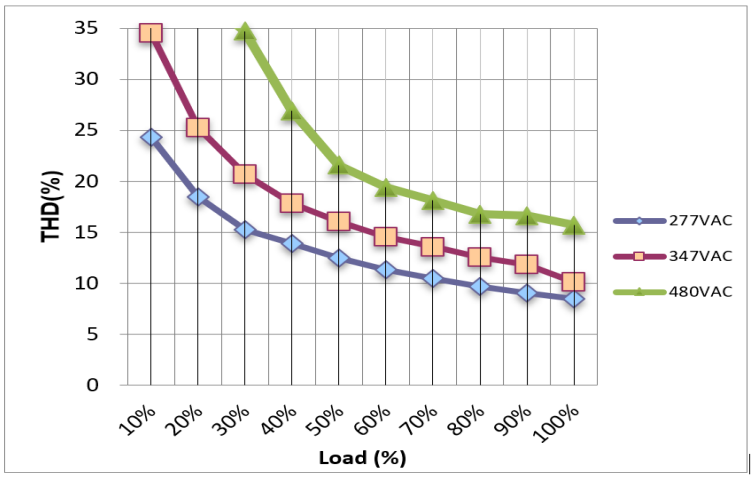
■ Efficiency vs Output



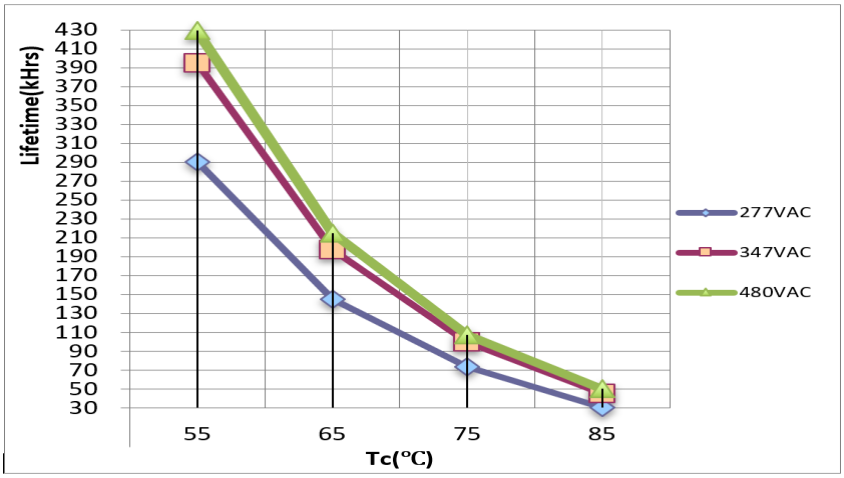
■ Power Factor vs Output



■ THD vs Load



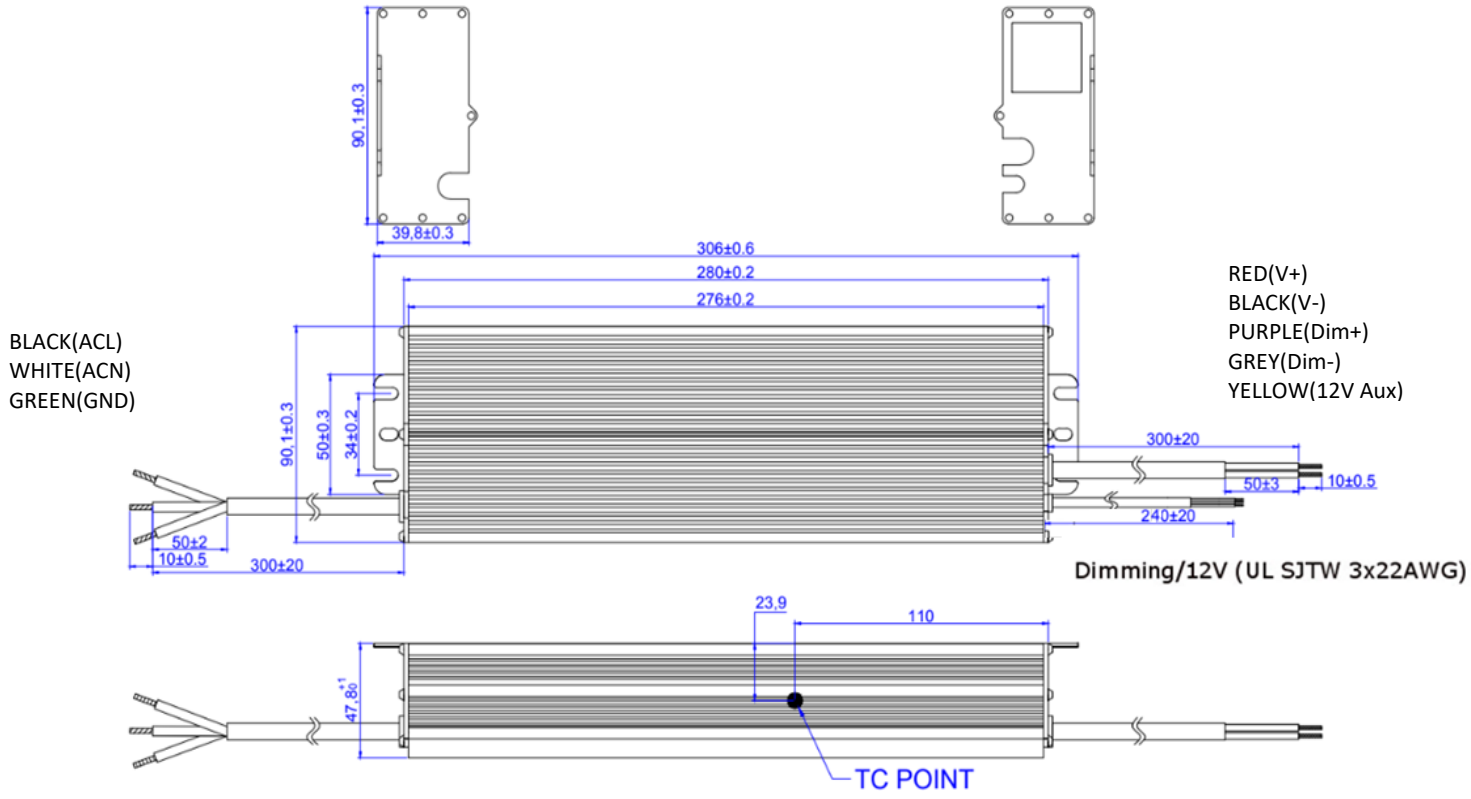
■ Lifetime vs Case Temperature

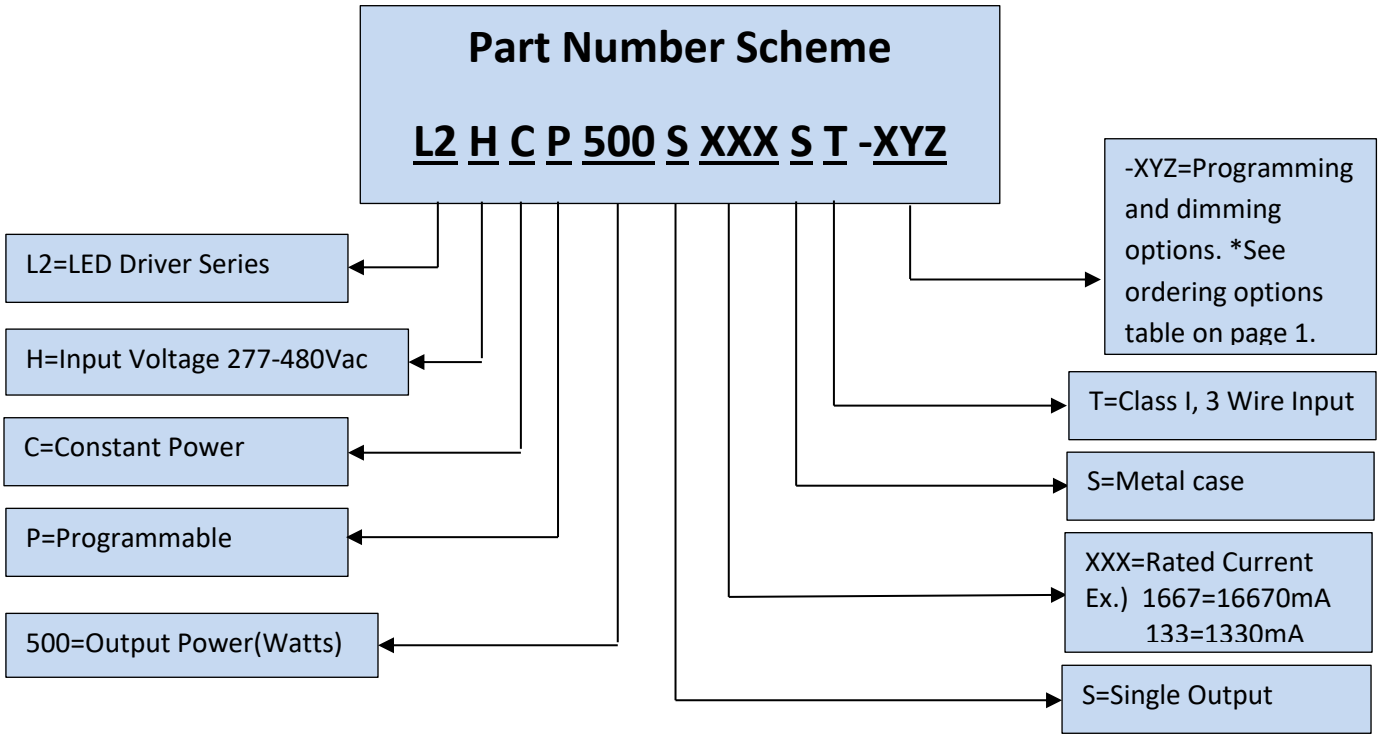


■ Mechanical Design

AC Input (UL STW 3x18AWG)

DC Output (UL SJTW 2x14AWG)





***Product images are for illustrative purposes only and may vary from actual design.**
***Specifications are subject to change without notice. Autec is not responsible for issues arising from errors or omissions.**

Rev	Change data	Change description			
		Item	From	To	Note
D1.1M	4/16/2020				