

■ **Features**

- Power rating: 320W
- Input Voltage: 120-277Vac
- Constant voltage design
- Output Current (6700mA-22000mA)
- Efficiency to 93%
- Protections: SCP, OTP, OVP, and OCP
- IP67
- 5-year warranty
- Surge Protection: L/N-PE: 6kV, L-N 4kV



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

■ **Application**

- LED strips, LED signs, billboards and landscaping lights

■ **Model List**

Model Number	Input Voltage Range	Output Power	Output Voltage	Output Current Min.	Output Current Max.	Efficiency	Certification
L3WV-320S012ST	120-277Vac	264W	12V	0	22000mA	91%	UL/cUL/CE
L3WV-320S024ST	120-277Vac	320W	24V	0	13340mA	93%	UL/cUL/CE
L3WV-320S036ST	120-277Vac	320W	36V	0	8900mA	93%	UL/cUL/CE
L3WV-320S042ST	120-277Vac	321W	42V	0	7650mA	93%	UL/cUL/CE
L3WV-320S048ST	120-277Vac	321W	48V	0	6700mA	93%	UL/cUL/CE

Autec power supplies are designed to meet and comply with the safety standards listed above. Contact Autec Sales to confirm available safety approvals for your specific power supply application.

■ **Input Characteristics**

Parameter	Min	Typ.	Max	Remarks
Rated AC input range	100Vac		277Vac	Derated@90-100Vac
AC input range	90Vac		305Vac	
Input frequency range	47Hz		63Hz	
Max input current			4.3A	90Vac, full load
Inrush current			80A	230Vac/50Hz, cold start
No load power		0.6W	1W	277Vac/50Hz, No load
Power factor	0.95	0.97		230Vac/50Hz, full load
	0.9	0.92		100-277Vac/50Hz, 75-100% Load
THD		8%	10%	230Vac/50Hz, full load
			20%	100-277Vac/50Hz, 75-100% Load

■ **Output Characteristics**

Parameter		Min	Typ.	Max	Remarks
Output voltage range	L3WV-320S012ST	11.4V	12V	12.6V	Full load
	L3WV-320S024ST	22.8V	24V	25.2V	
	L3WV-320S036ST	34.2V	36V	37.8V	
	L3WV-320S042ST	39.9V	42V	44.1V	
	L3WV-320S048ST	45.6V	48V	50.4V	
Output current range	L3WV-320S012ST	0		22000mA	
	L3WV-320S024ST	0		13340mA	
	L3WV-320S036ST	0		8900mA	
	L3WV-320S042ST	0		7650mA	
	L3WV-320S048ST	0		6700mA	
Efficiency@230Vac	L3WV-320S012ST	90%	91%		Output 12V/22A Output 24V/13.34A
	L3WV-320S024ST	92%	93%		
	L3WV-320S036ST	92%	93%		
	L3WV-320S042ST	92%	93%		
	L3WV-320S048ST	92%	93%		
Output current tolerance		-5%		+5%	Full load
Output voltage ripple (pk-pk)			1%	2%	Oscilloscope/20MHz, output with a 0.1uf ceramic capacitor and a 10uf electrolytic capacitor
Start-up time			0.6S	0.75S	115Vac
			0.3S	0.5S	230Vac
Output overshoot/undershoot		-10%		+10%	When the driver is on or off
Line regulation		-1%		+1%	Full load
Load regulation		-3%		+3%	
Transient response	Overshoot amplitude	-10%		+10%	di/dt=1A/μs, 25%-50%-25%
	Recover time			10ms	

■ **Environmental Requirements**

Parameter	Min	Typ.	Max	Remarks
Operating Temperature	-40°C	25°C	+60°C	
Storage Temperature	-40°C	25°C	+85°C	
Operation Humidity	10%RH		90%RH	
Storage Humidity	5%RH		95%RH	
Altitude	-65m		4,000m	
Cooling method		Air Cooling		

Technical Sales / Customer Service: +1-818-338-7788 • Email: sales@autec.com

31328 Via Colinas Suite 102 • Westlake Village, CA 91362 USA • www.autec.com

December 3, 2019

■ **Safety Compliance**

Certification	Standard	Status	Remark
UL/cUL	UL8750	✓	
TUV	EN 61347-2-13:2014 EN61347-1:2008+A1:2011+A2:2013 EN62493:2015	✓	
SAA	AS/NZS61347.2.13	✓	
CE	EN 61347-2-13:2014 EN61347-1:2008+A1:2011+A2:2013	✓	
Item	Standard	Remark	
Insulation Strength	Input-output	3750Vac/10mA Max/60s	Reinforced insulation
	Primary-Earth	1875Vac/10mA Max/60s	Basic insulation
	Sec.- Earth	1000Vac/10mA Max/60s	Function insulation
Insulation Resistance	Input-output	≥10 MΩ	Testing Voltage: 500Vdc
Ground Resistor		≤0.1Ω	25A/1min
Leakage Current		≤0.75mA	277Vac
Item	Criterion	Remark	
Conduction Emission	EN55015:2013+A1:2015		
Radiation Emission	EN55015:2013+A1:2015		
Harmonic Current Emissions	IEC/EN 61000-3-2	Class C	
Surge	IEC/EN61000-4-5	Difference mode 4kV, Common mode 6kV Criterion B	

Disclaimer:

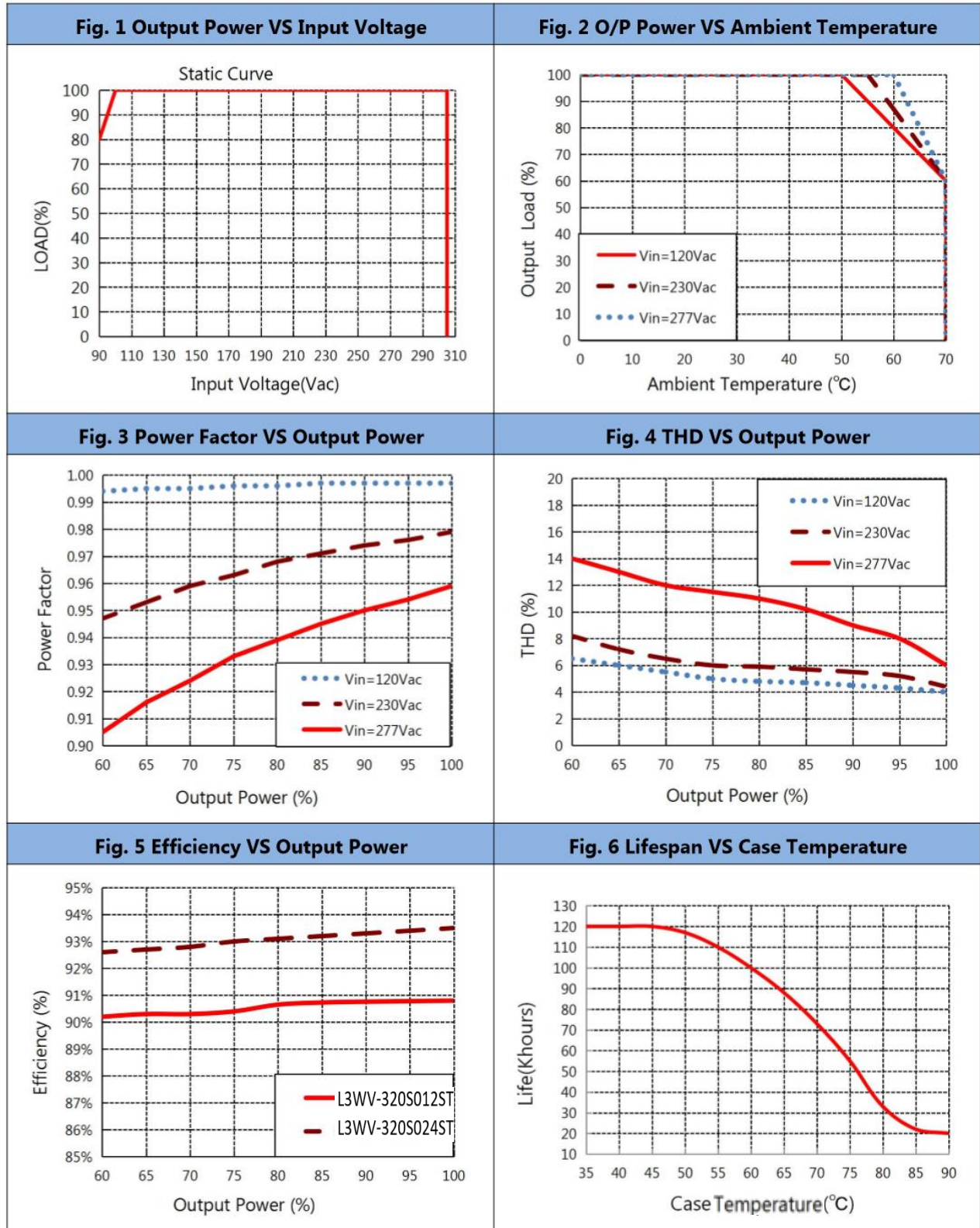
Autec Power Systems' (Autec) LED Drivers are Hi-Pot tested during the manufacturing process. Autec assumes no responsibility for secondary Hi-Pot testing at customer location or designated production line(s). Should customer require further Hi-Pot testing, at their own production line, following assembly 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.

■ Other Characteristics

Parameter	Min	Typ.	Max	Remarks	
Protection	OCP	115%Io	130%Io	Hiccup mode	
	OVP	105%Vo	130%Vo	The output voltage will be limited at the design range	
	OTP	100°C	110 °C	120 °C	Shut down, when temperature is decreased, it will auto recover
	Short Circuit Protection	Driver will not damage with short circuit power <20W		Hiccup mode	
Life Time	55,000hrs		230Vac full load, Tc 75°C		
MTBF	200,000hrs		230Vac full load, (MIL-HDBK-217F)		
Temperature Coefficient	-0.03%/°C		+0.03%/°C		
Tc			90°C		
Warranty	5 years		Tc 75°C		
Net Weight	2240g				
Dimension	252x90x45mm		LxWxH		
Packaging	1.8kg /unit; 7pcs/carton				

*Note: All the parameters above are tested at 25°C, unless specified

■ **Performance Curves**

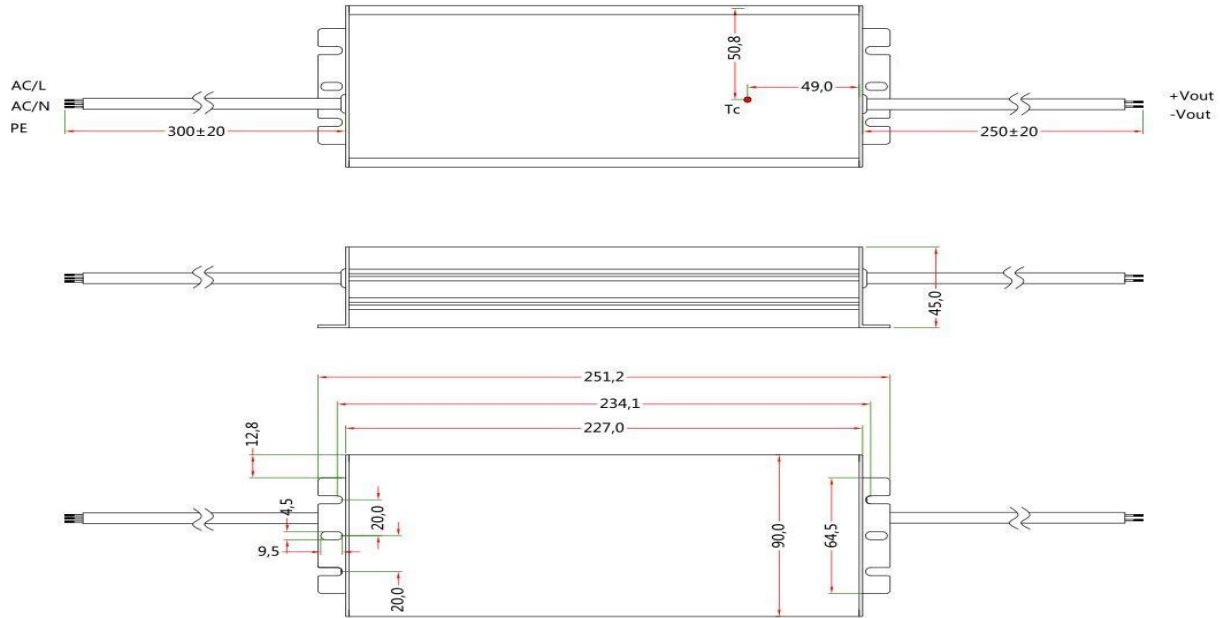


Technical Sales / Customer Service: +1-818-338-7788 • Email: sales@autec.com

31328 Via Colinas Suite 102 • Westlake Village, CA 91362 USA • www.autec.com

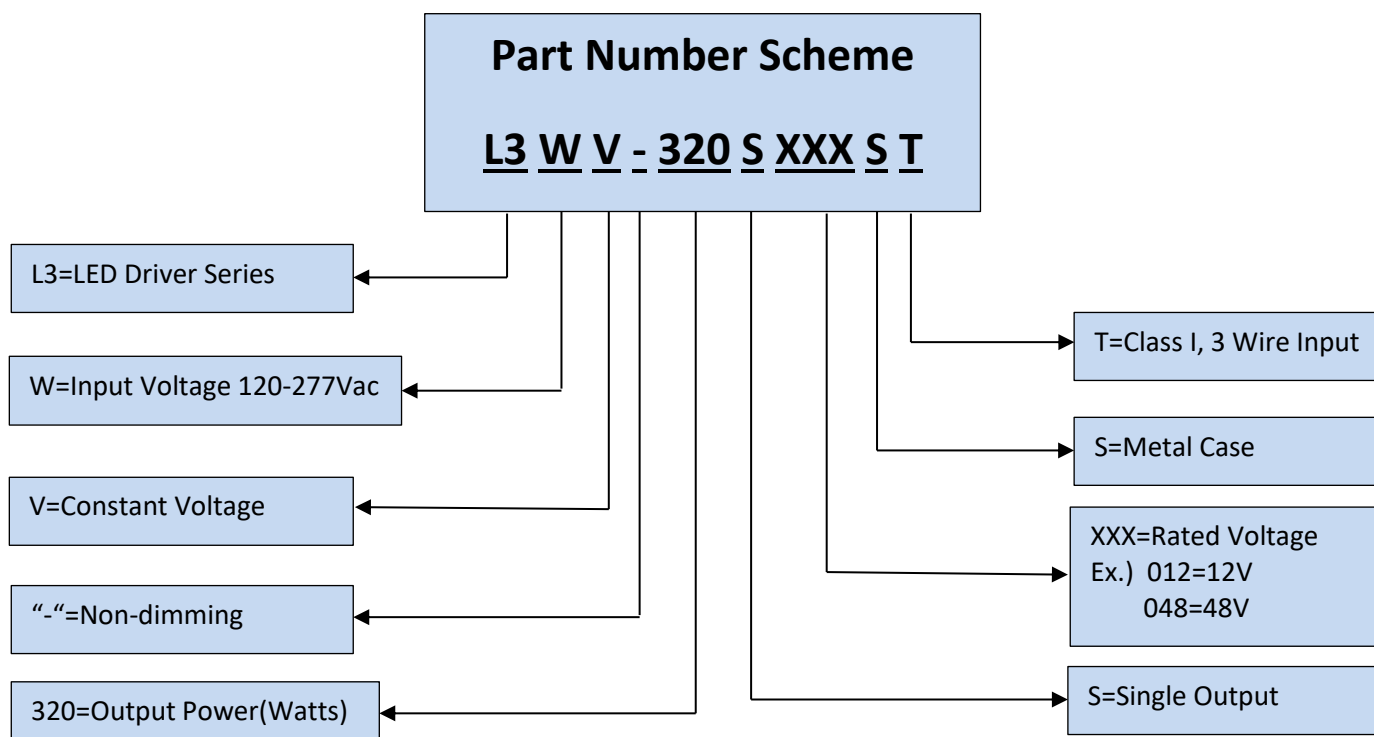
December 3, 2019

■ **Mechanical Diagram**



Wire Specifications

Input	UL SJTW #18AWG 3*0.824 mm ² , O.D: 7.8mm, GREEN: PE, BLACK: L, WHITE: N
Output	UL SJTW #14AWG 2*2.08 mm ² , O.D: 9.0mm, RED: V+, BLACK: V-



***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.**