

■ Features

- Power rating: 100W
- Input Voltage: 100-277Vac
- Constant voltage design
- Output Current (0mA-8300mA)
- Optional dimming function: Timing
- Efficiency to 89%
- Protections: SCP, OTP, and OCP
- IP67
- Tc = 90°C
- 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 luminaries such as signage and grow lights

■ Model List

Model Number	Input Voltage Range	Output Power	Output Voltage	Output Current Min.	Output Current Max.	Efficiency	Certification
L3WV-100S012ST	100-277Vac	100W	12V	0	8300mA	87%	UL/cUL/ CE
L3WV-100S024ST	100-277Vac	96W	24V	0	4000mA	89%	UL/cUL/ CE

■ 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			1.4A	90Vac, full load
Inrush current			60A	230Vac/50Hz, cold start Twidth=450us measured at 50% Ipeak
No load power		0.5W	1W	277Vac/50Hz, No load
Power factor	0.96	0.98		230Vac/50Hz, full load
	0.95			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 current range	L3WV-100S012ST	0		8.3A	
	L3WV-100S024ST	0		4A	
Output voltage range	L3WV-100S012ST	11.4V	12V	12.6V	Full load
	L3WV-100S024ST	23.3V	24V	24.7V	
Efficiency@230Vac	L3WV-100S012ST	85%	87%		Output 12V/8.3A
	L3WV-100S024ST	87%	89%		Output 24V/4A
Output voltage tolerance	L3WV-100S012ST	-5%		+5%	Full load
	L3WV-100S024ST	-3%		+3%	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			1.2S	1.5Ss	115Vac
			0.6S	1S	230Vac
Output Overshoot/undershoot		-10%		+10%	When the driver is on or off
Line regulation		-1.5%		+1.5%	Full load
Load regulation		-2%		+2%	
Transient Response	Overshoot amplitude	-5%		+5%	di/dt=1A/μs, 25%-75%-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			

■ **Safety Compliance**

Certification		Standard	Status	Remark
UL/cUL		UL8750	√	
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:

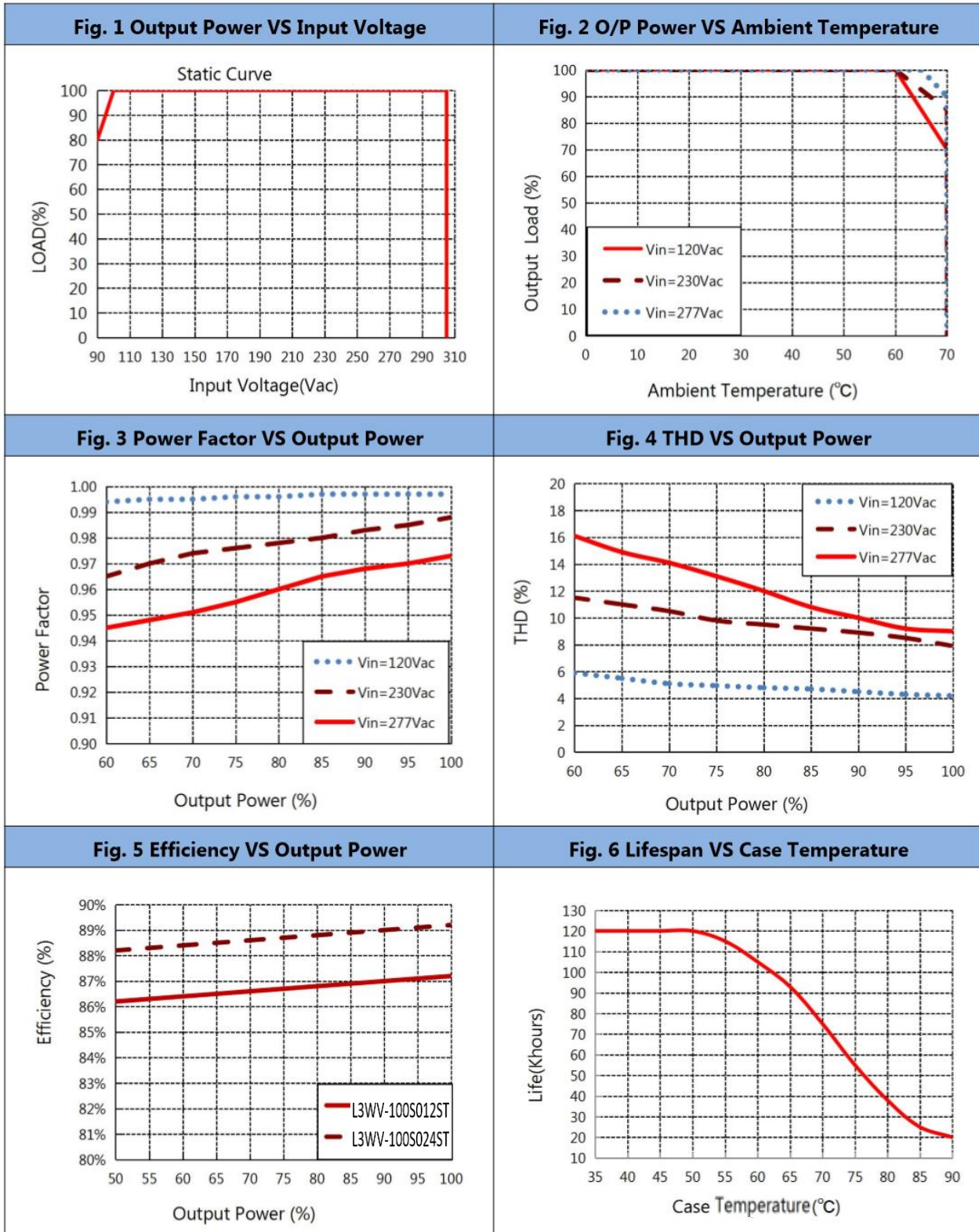
Autec Power Systems' (Autec) LED Drivers are Hi-Pot tested during the manufacturing process. Autec assumes no responsibility for secondary Hi-Pot testing at customer location or designated production line(s). Should customer require further Hi-Pot testing, at their own production line, following assembly 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	OTP	90°C	100 °C	110 °C	Tc, IC lock, must restart
	OCP	115%Io		130%Io	Hiccup mode
	Short Circuit Protection	Driver will not damage with short circuit power <5W			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: 0°C~85°C
Tc		85°C			
Warranty		5 years		Tc 70°C	
Net Weight		800g			
Dimension		193x63x40mm			LxWxH
Packaging		0.8kg /unit; 14pcs/carton		500x390x170mm	

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

■ **Performance Curves**

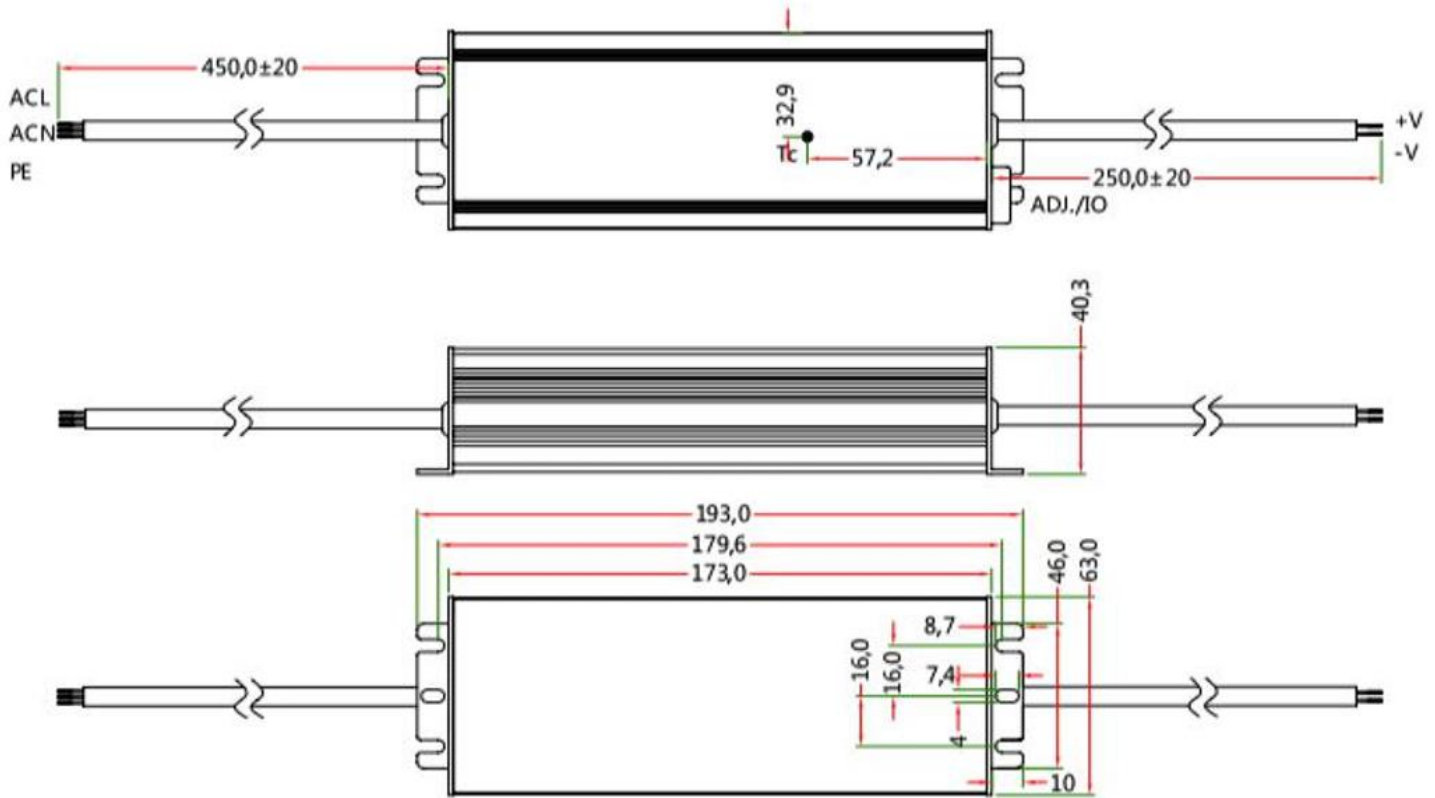


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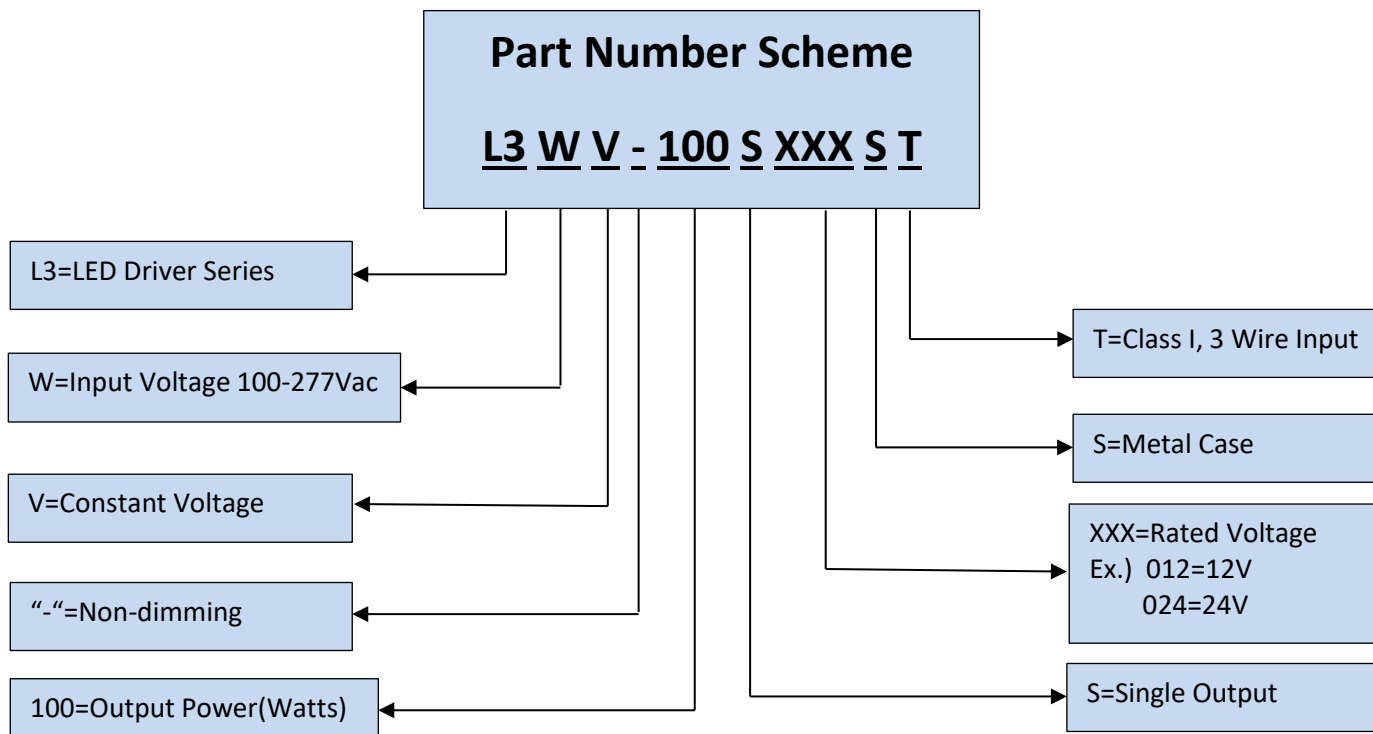
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■ **Mechanical Diagram**



Wire Specifications	
Input	UL SJTW #18AWG 3*0.824 mm ² , O.D: 7.8mm, GREEN: PE, BLACK: L, WHITE: N
Output	UL SJTW #18AWG 2*2.08 mm ² , O.D: 7.6mm, 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.**