

### ■ Features

- Power rating: 60W
- Input Voltage: 120-277Vac
- Constant voltage design
- Output Current (0mA-5000mA)
- Efficiency to 89%
- Protections: SCP, OTP, and OVP
- UL Class 2 output available
- Tc = 90°C
- 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 luminaries such as high bays, high mast, and street lights

### ■ Model List

Model Number	Input Voltage Range	Output Power	Output Voltage	Output Current Min.	Output Current Max.	Efficiency	Certification
L3WV-060S012ST	120-277Vac	60W	12V	0	5000mA	87%	UL/cUL/ CE
L3WV-060S024ST*	120-277Vac	60W	24V	0	2500mA	89%	UL/cUL/ CE

\*Class 2 output

### ■ Input Characteristics

Parameter	Min	Typ.	Max	Remarks
Rated AC input range	120Vac		277Vac	
AC input range	90Vac		305Vac	
Input frequency range	47Hz		63Hz	
Max input current			0.7A	100Vac, full load
Inrush current			60A	230Vac/50Hz, cold start
No load power		0.5W	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 current range	L3WV-060S012ST			5A	
	L3WV-060S024ST			2.5A	
Output voltage range	L3WV-060S012ST	11.4V	12V	12.6V	
	L3WV-060S024ST	22.8V	24V	25.2V	
Efficiency@230Vac	L3WV-060S012ST	85%	87%		
	L3WV-060S024ST	87%	89%		
No load Voltage	L3WV-060S012ST	12.2V	12.5V	12.8V	
	L3WV-060S024ST	24.2V	24.5V	24.8V	
Output voltage tolerance		-5%		+5%	
Output voltage ripple (pk-pk)			1%	2%	Oscilloscope/20MHz, output with a 0.1uf ceramic capacitor and a 10uf electrolytic capacitor
Start-up time			0.5S	1S	115Vac
			0.5S	1S	230Vac
Output overshoot/undershoot		-10%		+10%	When the driver is on or off
Line regulation		-1%		+1%	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	3200Vac/10mA Max/60s	Reinforced insulation
	Primary-Earth	1600Vac/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:**

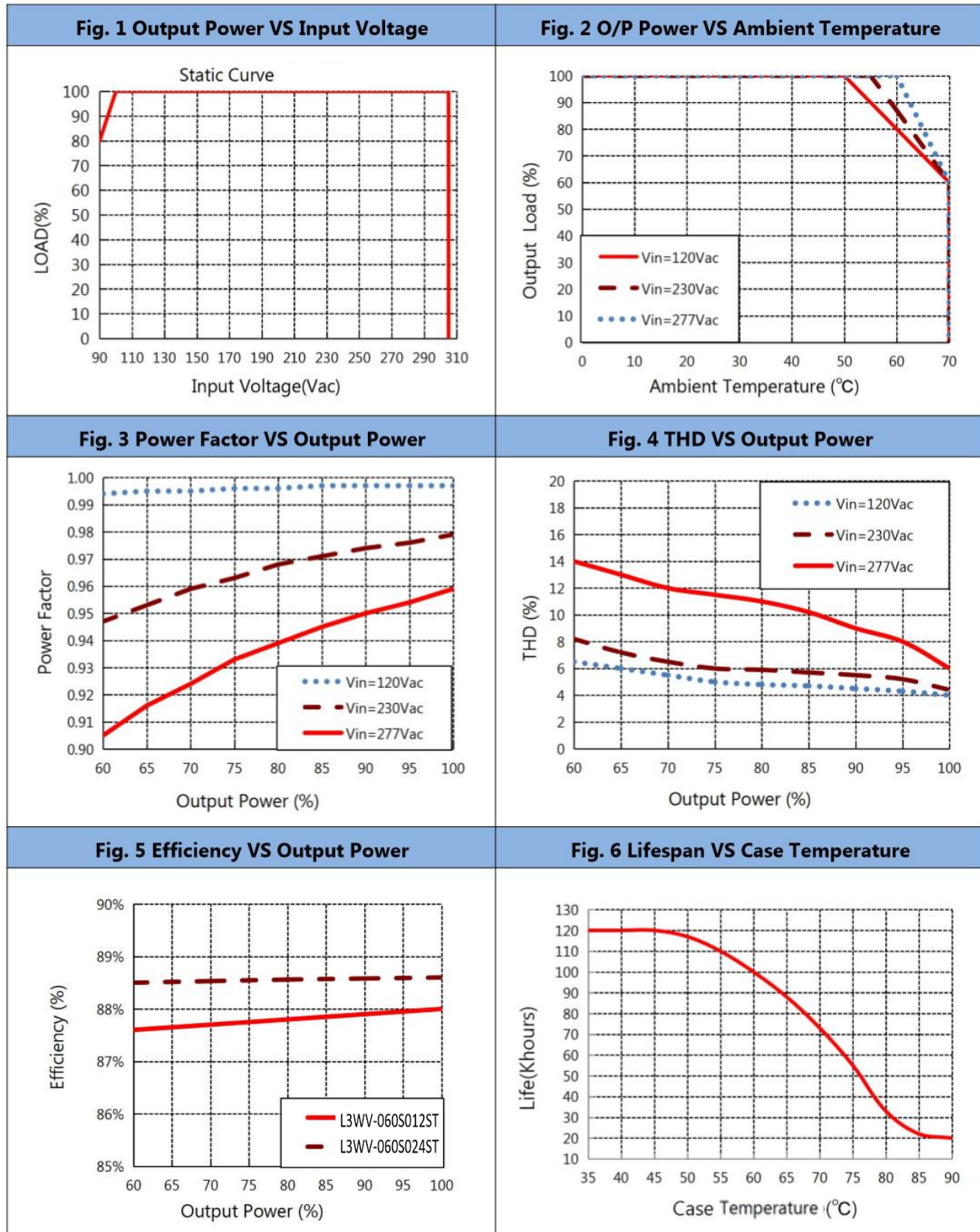
Autec Power Systems' (Autec) LED Drivers are Hi-Pot tested during the manufacturing process. Autec assumes no responsibility for secondary Hi-Pot testing at customer location or designated production line(s). Should customer require further Hi-Pot testing, at their own production line, following assembly 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	140%Io	Hiccup mode	
	OVP	120% Vo	150%Vo	The output voltage will be limited at the design range	
	OTP	100°C	110 °C	120 °C	Tc case, recovers automatically after fault condition is removed.
	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			85°C		
Warranty	5 years		Tc 75°C		
Net Weight	600g				
Dimension	152x63x37mm		LxWxH		
Packaging	0.6kg /unit; 14pcs/carton				

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

■ **Performance Curves**

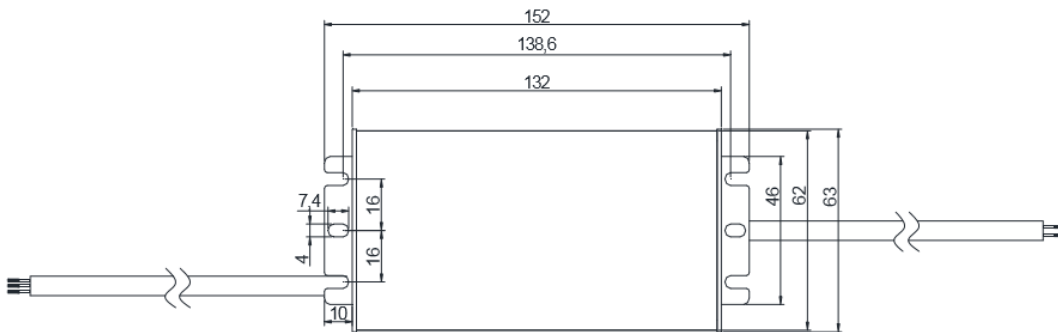
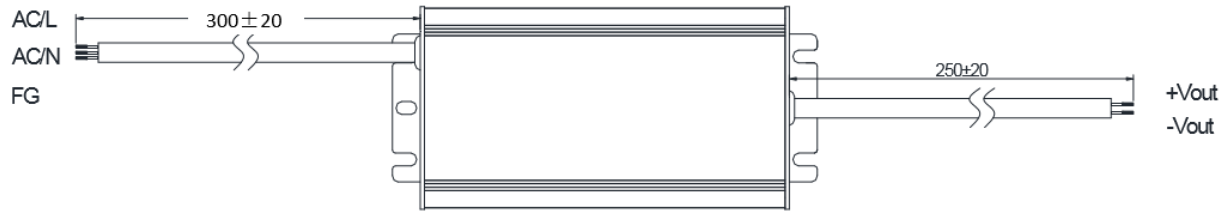


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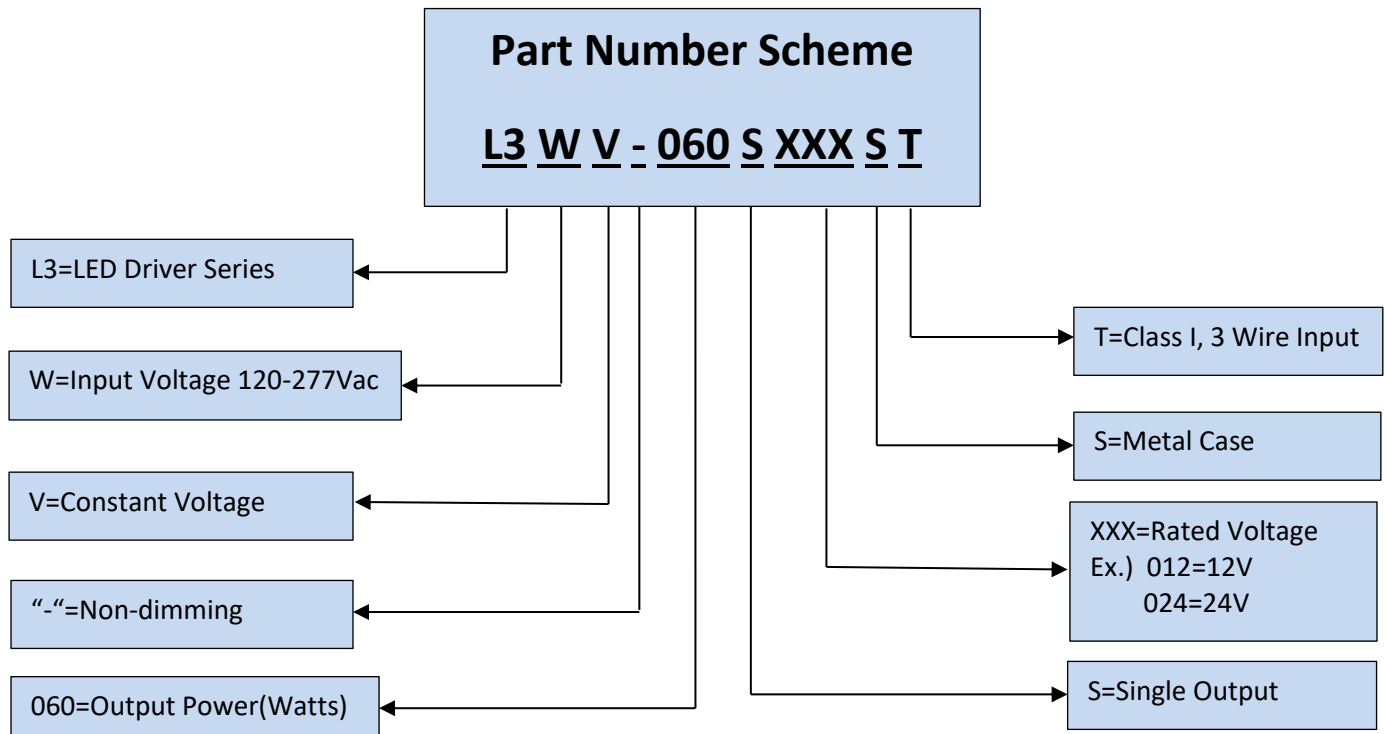
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■ **Mechanical Diagram**



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