

■ Features

- Power rating: 150W
- Input Voltage: 90-305Vac
- Constant voltage design
- Output Current (0mA-12500mA)
- Efficiency to 93%
- Protections: SCP, OTP, OCP, and OVP
- IP67
- 5-year warranty
- Surge Protection: L/N-PE: 6kV, L-N 4kV

RoHS
Compliant



*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-150S012ST	90 ~ 305Vac	150W	12V	0	12500mA	91%	UL/cUL/ CE
L3WV-150S024ST	90 ~ 305Vac	150W	24V	0	6250mA	93%	UL/cUL/ CE

■ Input Characteristics

Parameter	Min	Typ.	Max	Remarks
Rated AC input range	100Vac		277Vac	
AC input range	90Vac		305Vac	
Input frequency range	47Hz		63Hz	
Max input current			2.1A	90Vac, full load
Inrush current			70A	230Vac/50Hz, cold start
No load power		0.8W	1W	277Vac/50Hz, No load
Power factor	0.95	0.96		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-150S012ST			12.5A	
	L3WV-150S024ST			6.25A	
Output voltage range	L3WV-150S012ST	11.4V	12V	12.6V	
	L3WV-150S024ST	22.8V	24V	25.2V	
Efficiency@230Vac	L3WV-150S012ST	89%	91%		
	L3WV-150S024ST	91%	93%		
Output voltage tolerance		-5%		+5%	
Output voltage ripple (pk-pk)			1%	3%	full load
			1%	3%	full load
Start-up current overshoot		10%		10%	
Start-up time			.7s	1s	115/230Vac
Start-up current overshoot		10%		10%	
Line regulation		-1%		+1%	Full load
Load regulation		-3%		+3%	
Transient response	Overshoot amplitude	-5%		+5%	di/dt=1A/μs, 25%-50%-25%
	Recover time			10ms	

■ Environmental Requirements

Parameter	Min	Typ.	Max	Remarks
Operating Temperature	-40C°	25C°	+60C°	
Storage Temperature	-40C°	25C°	+85C°	
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/5mA Max/60s	Reinforced insulation	
	Primary-Earth	18750Vac/5mA Max/60s	Basic insulation	
	Sec.- Earth	1000Vac/5mA 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	

■ Other Characteristics

Parameter		Min	Typ.	Max	Remarks
Protection	OCP	115%Io		130%Io	
	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 <10W			Hiccup mode
	OVP	105%Io		180%Vo	The output voltage will be limited at the design range
Life Time		55,000hrs			230Vac full load, Tc 75°C
MTBF		200,000hrs			230Vac full load, Ta=25°C, (MIL-HDBK-217F)
Temperature Coefficient		-0.03%/°C			+0.03%/°C Tc: 0°C~90°C
Tc		90°C			
Warranty		5 years			Tc 75°C
Net Weight		950g			
Dimension		200x63x40mm			LxWxH
Packaging		0.95kg /unit; 15pcs/carton			

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

■ **Performance Curves**

Fig. 1 Output Power VS Input Voltage

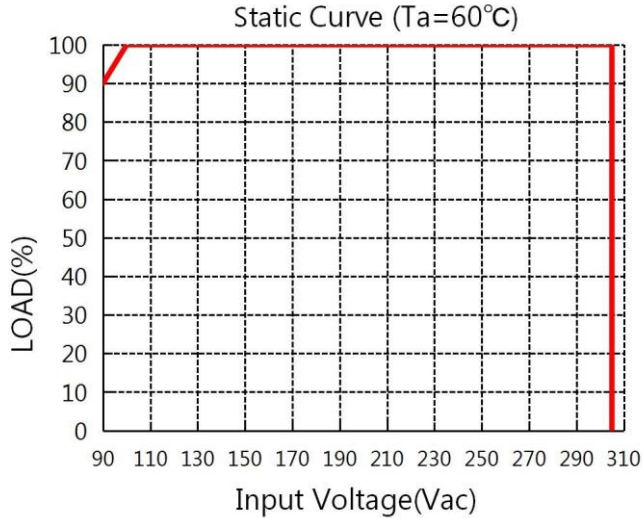


Fig. 2 O/P Power VS Ambient Temperature

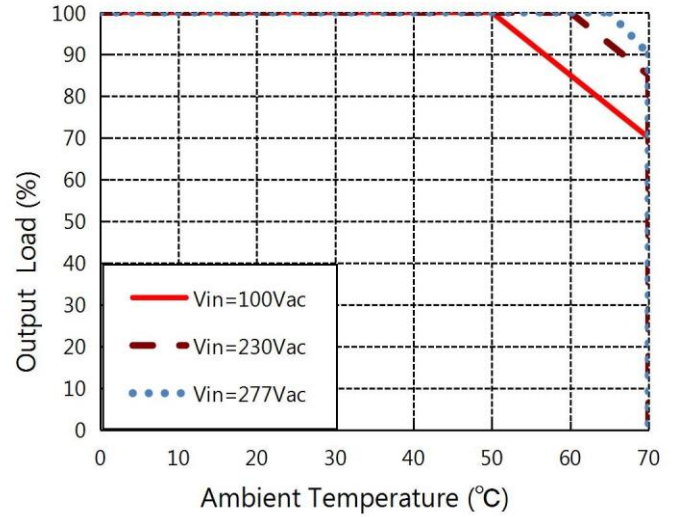


Fig. 3 Power Factor VS Output Power

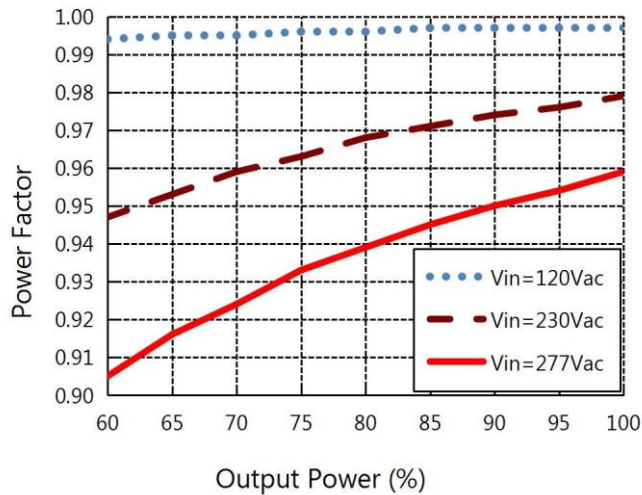
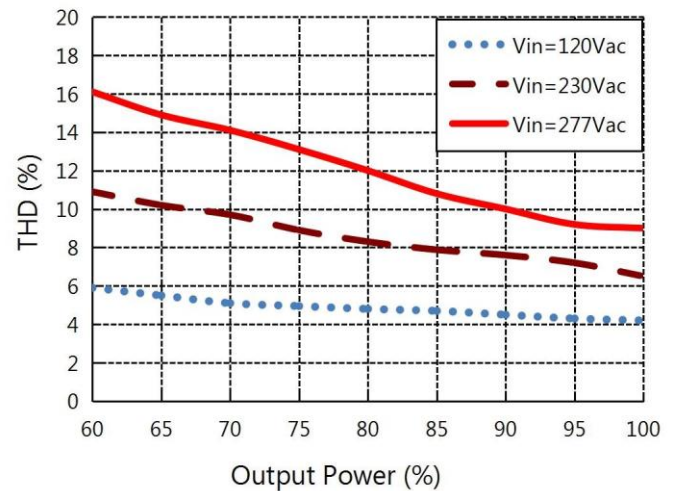


Fig. 4 THD VS Output Power



■ Performance Curves(cont.)

Fig. 5 Efficiency VS Output Power

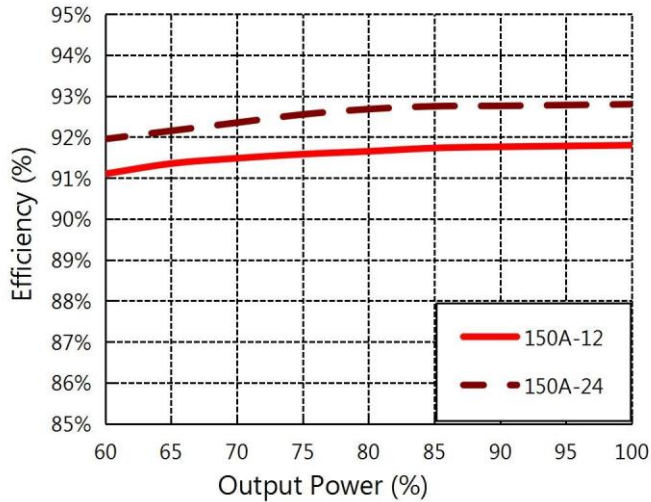
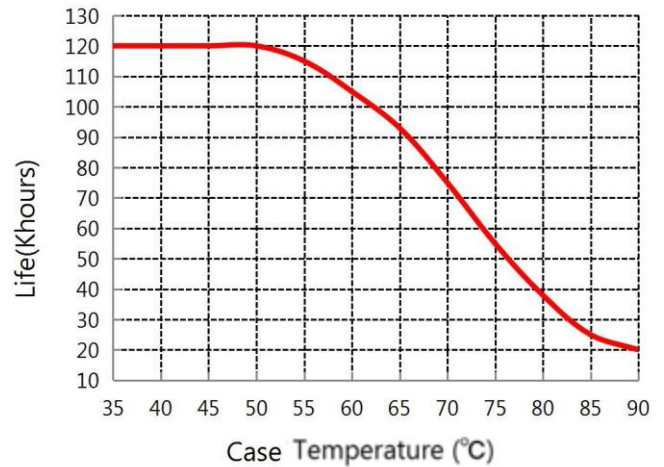
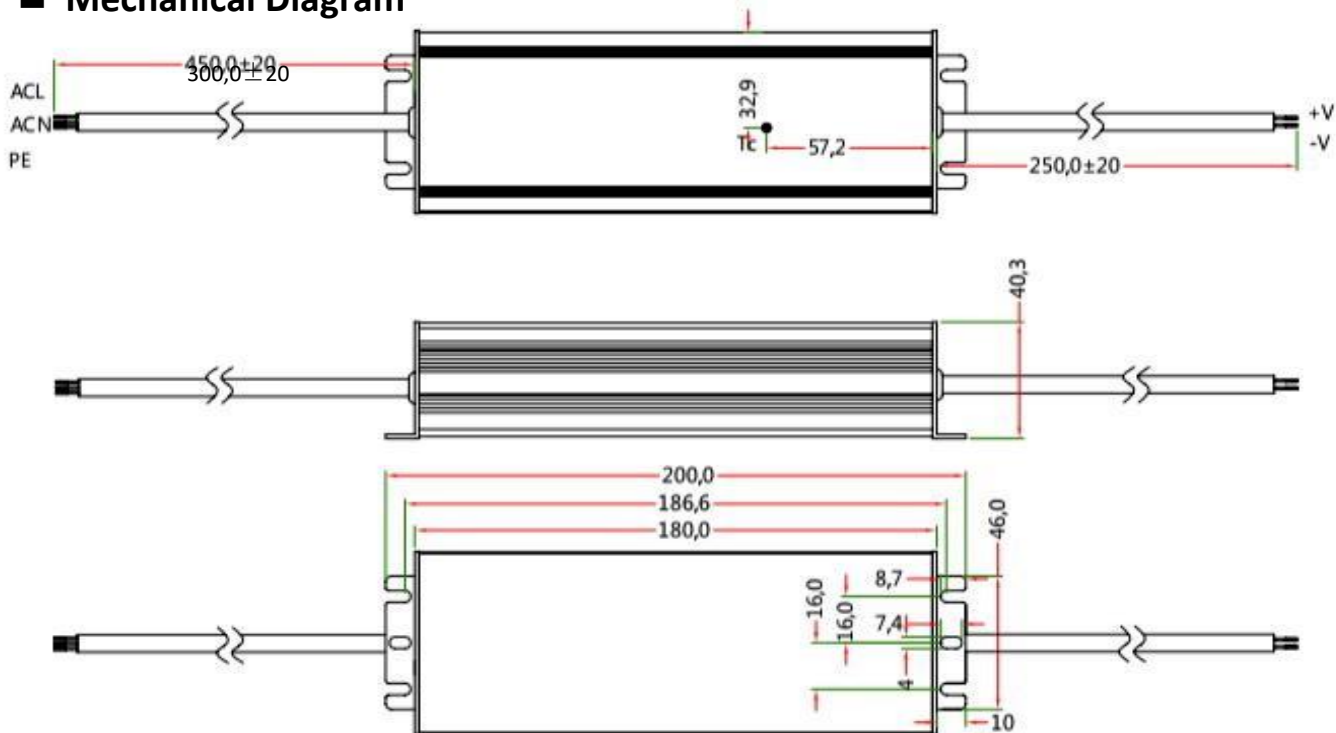


Fig. 6 Lifespan VS Case Temperature



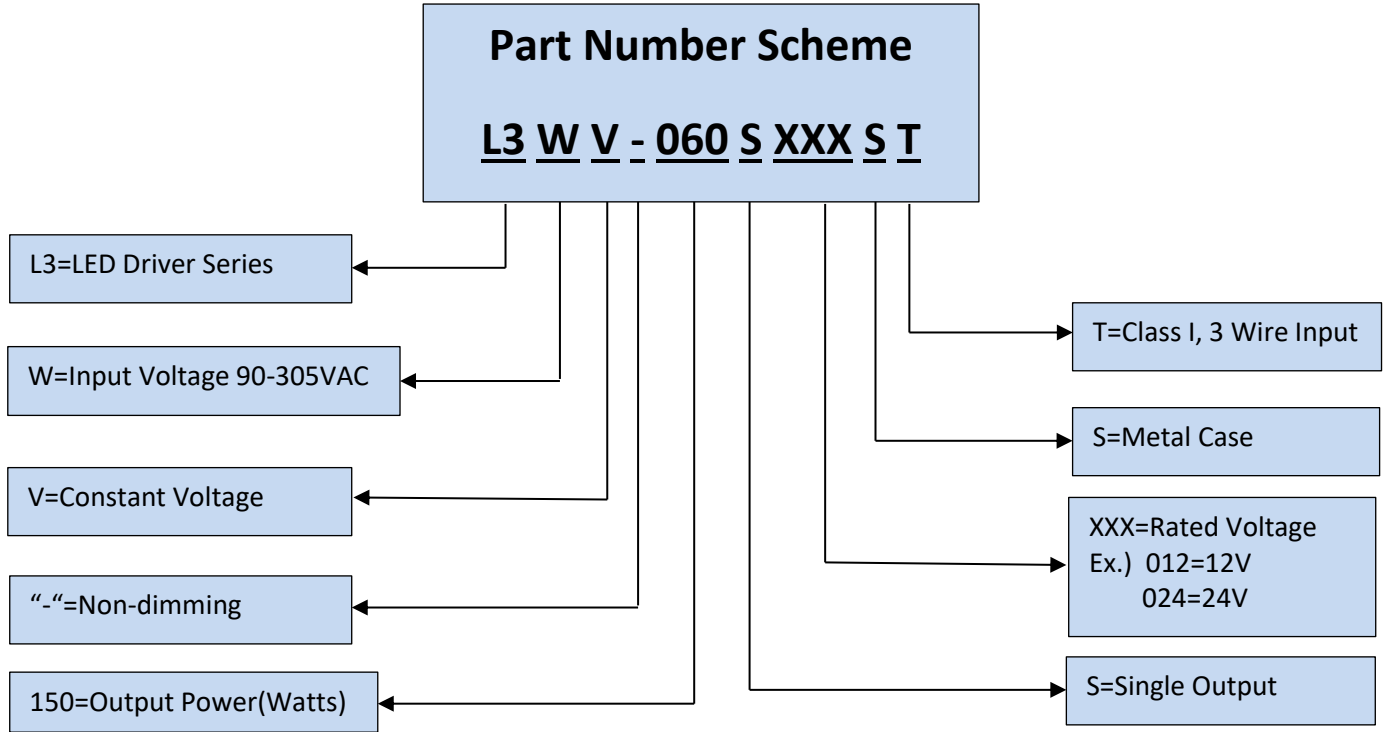
■ Mechanical Diagram



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-

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