

■ Features

- Power rating: 100W
- Input Voltage: 90-305Vac
- Constant voltage design
- Output Current (0mA-8300mA)
- Optional dimming function: Timing
- Efficiency to 89%
- Protections: SCP, OTP, and OVP
- IP67
- 5-year warranty
- Surge Protection: L/N-PE: 6kV, L-N 4kV

■ Application

- LED luminaries such as signage and grow lights

■ Model List



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

Model Number	Input Voltage Range	Output Power	Output Voltage	Output Current Min.	Output Current Max.	Efficiency	Certification
L3WV-100S012ST	90 ~ 305Vac	100W	12V	0	8300mA	87%	UL/cUL/ CE
L3WV-100S024ST	90 ~ 305Vac	100W	24V	0	4100mA	89%	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			1.4A	90Vac, full load
Inrush current			60A	230Vac/50Hz, cold start
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			8.3A	Po=Vo*Io=100W, full load, see Fig. 1
	L3WV-100S024ST			4.1A	
Output voltage range	L3WV-100S012ST	11.5V	12V	12.5V	
	L3WV-100S024ST	23.5V	24V	24.5V	
Efficiency@230Vac	L3WV-100S012ST	85%	87%		Output 12V/8.3A
	L3WV-100S024ST	87%	89%		Output 24V/4.1A
No load Voltage	L3WV-100S012ST	12.2V	12.5V	12.8V	
	L3WV-100S024ST	24.2V	24.5V	24.8V	
Output current tolerance		-5%		+5%	
Output voltage ripple (pk-pk)			10%	20%	full load
Output current ripple (pk-pk)			10%	20%	full load
Start-up current overshoot				15%	
Start-up time			1s	2s	230Vac
Line regulation		-2%		+2%	Full load
Load regulation		-2%		+2%	

■ 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	✓	
TUV		EN 61347-2-13:2014 EN61347-1:2008+A1:2011+A2:2013 EN62493:2015		
SAA		AS/NZS61347.2.13		
BIS		IS15885:2012 Part 2 Sec 13		
CCC		GB 19510.14-2009		
CE		EN 61347-2-13:2014 EN61347-1:2008+A1:2011+A2:2013	✓	
Item		Standard	Remark	
Insulation Strength	Input-output	3200Vac/5mA Max/60s	Reinforced insulation	
	Primary-Earth	1600Vac/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
Timing Curve (optional)	Timing	5H/6H/7H/8H per section			Default Mode: 24Hour/Circle with 50% load
Protection	OTP	90°C	100 °C	110 °C	Tc, IC lock, must restart
	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, Ta=25°C, (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; 21pcs/carton			

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

■ **Performance Curves**

Fig. 1 O/P Voltage VS Output Current

Fig. 2 O/P Power VS Ambient Temperature

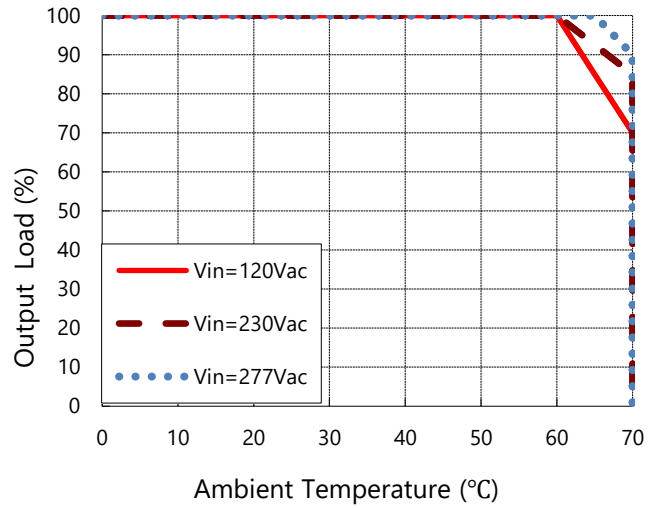
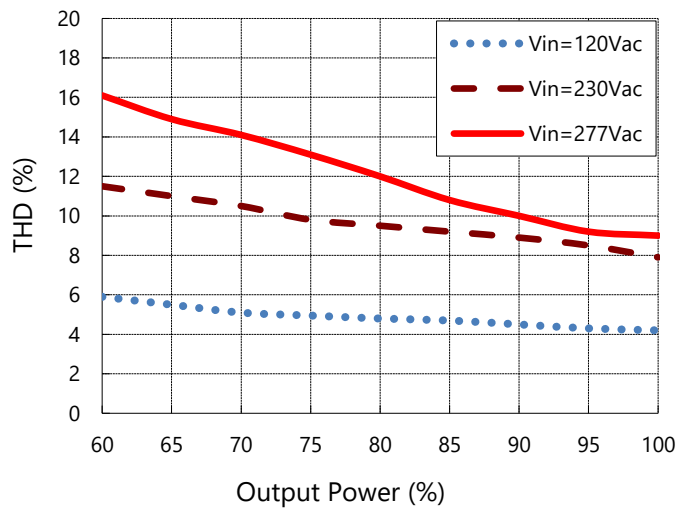
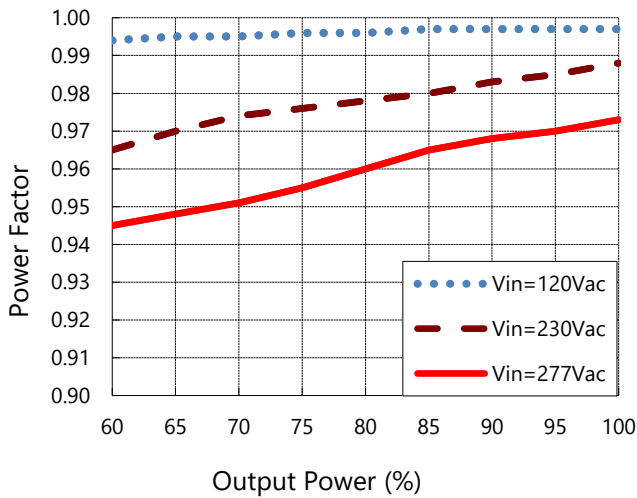
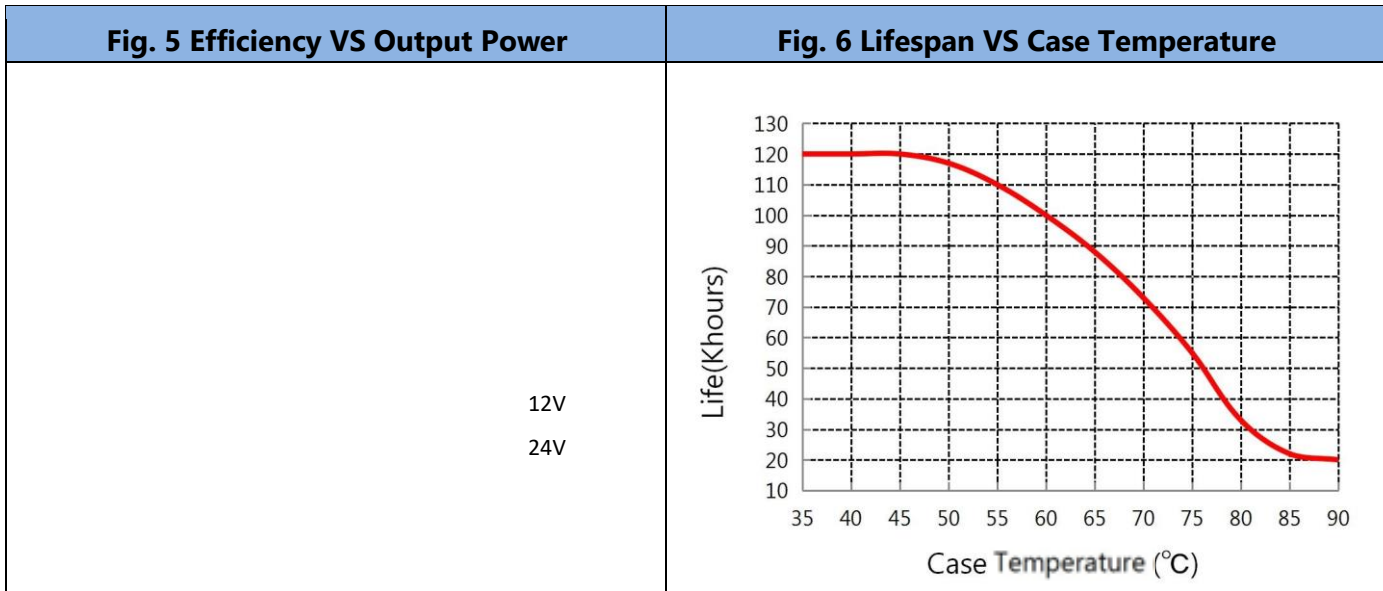


Fig. 3 Power Factor VS Output Power

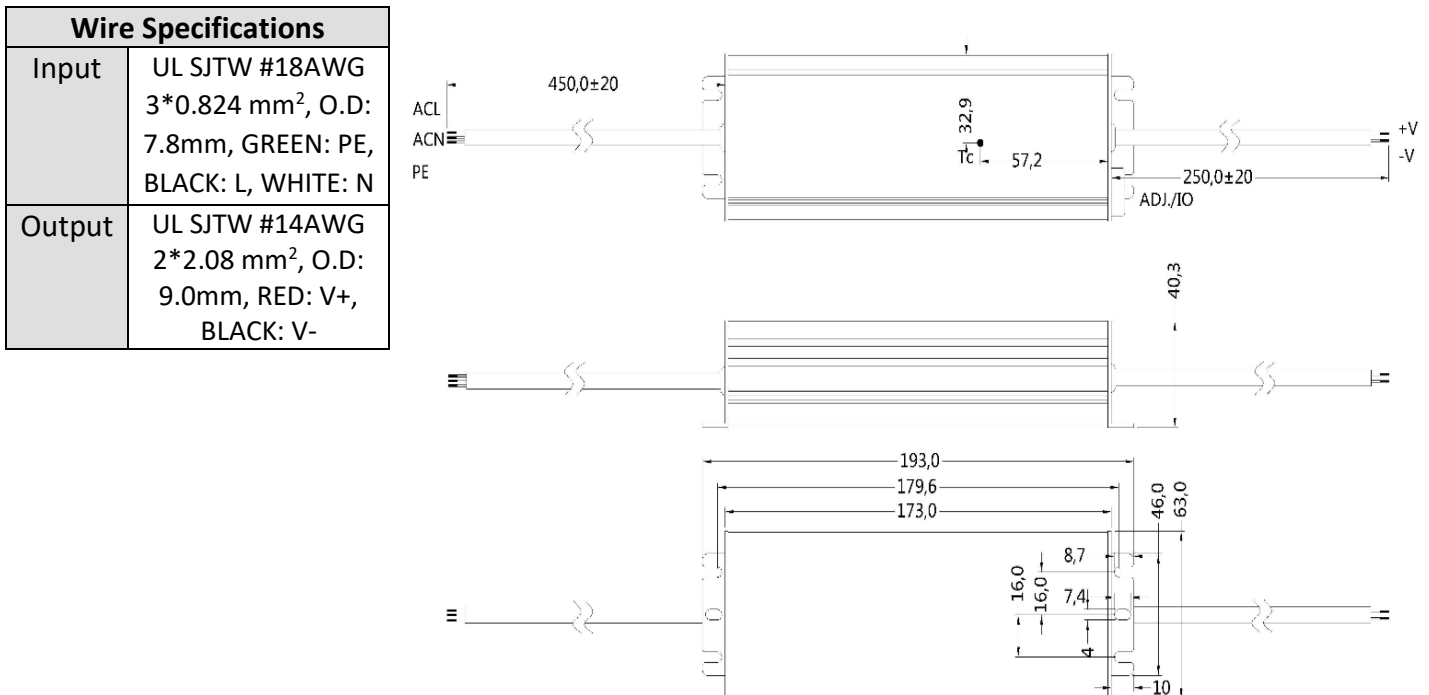
Fig. 4 THD VS Output Power



■ Performance Curves(cont.)



■ Mechanical Diagram



Part Number Scheme

L 3 W V - 100 S XXX S T

L3=LED Driver Series

W=Input Voltage 90-305VAC

V=Constant Voltage

"-"=Non-dimming

100=Output Power(Watts)

T=Class I, 3 Wire Input

S=Metal Case

XXX=Rated Voltage
Ex.) 012=12V
024=24V

S=Single Output

***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.**