L3UV-040 Series

40W, 100-240 Vac Input, Constant Voltage LED Driver

RoHS Compliant

Features

- Power rating: 40W
- Input Voltage: 100-240Vac
- Constant voltage design
- Output Current (0mA-3300mA)
- Efficiency to 86%
- Protections: SCP, OTP, and OCP
- UL Class II output available
- Tc = 75˚C
- IP65
- 5-year warranty

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

Application

- LED lighting, and moving signs
- Dry, Damp, and Wet Locations

Model List

Model Number	Input Voltage Range	Output Power	Output Voltage	Output Current Min.	Output Current Max.	Efficiency	Certification
L3UV-040S012PS	100-240Vac	40W	12V	0	3300mA	84%	UL/cUL/CE
L3UV-040S024PS	100-240Vac	40W	24V	0	1670mA	86%	UL/cUL/CE

Input Characteristics

Parameter	Min	Typ.	Max	Remarks
Rated AC input range	100Vac		240Vac	
AC input range	90Vac		264Vac	
Input frequency range	47Hz		63Hz	
Max input current			1A	90Vac, full load
Inrush current			$40A^2S$	230Vac, 25C (cold Start), 10%Ipk-10%Ipk Time of deration=2.5ms
No load power		0.35W	0.5W	230Vac/50Hz

■ Output Characteristics

Parameter		Min	Typ.	Max	Remarks
Output current range	L3UV-040S012ST			3.3A	
	L3UV-040S024ST			1.67A	
Output voltage range	L3UV-040S012ST		12V		
	L3UV-040S024ST		24V		
Efficiency@230Vac	L3UV-040S012ST	82%	84%		
	L3UV-040S024ST	84%	86%		
Output currant tolerance		-5%		+5%	
Output voltage ripple (pk-pk)			1%	2%	Full load
Start-up time			0.35S	0.5S	230Vac
Line regulation		-1%		+1%	Full load
Load regulation		-2%		+2%	
Transient response	Overshoot amplitude	-5%		+5%	di/dt=1A/μs, 25%-50%-25%
	Recover time			10ms	

■ Other Characteristics

Parameter		Min	Typ.	Max	Remarks
Protection	OCP	120%Io		160%Io	
	OVP	110% Vo		160%Vo	
	OTP	110˚C	115˚C	120 ˚C	Tc case, recovers automatically after fault condition is removed.
	Short Circuit Protection	Driver will not damage with short circuit power <10W			Shut down O/P voltage re-power on to recover
Life Time		30,000hrs			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
Warranty		5 years			Tc 75˚C
Net Weight		300g			
Dimension		148x40x30mm			LxWxH
Packaging		0.3kg /unit; 14pcs/carton			

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

■ Environmental Requirements

Parameter	Min	Typ.	Max	Remarks
Operating Temperature	-25˚C	25˚C	+65˚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	3000Vac/10mA Max/60s	Reinforced insulation
Insulation Resistance	Input-output	≥10 MΩ	Testing Voltage: 500Vdc
Ground Resistor		NA	
Leakage Current		≤0.75mA	240Vac

Item	Criterion	Remark
Conduction Emission	EN55032	Class B
Radiation Emission	EN55032	Class B
Surge	IEC/EN61000-4-5	Difference mode 2kV, Common mode 2kV Criterion A

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.

■ Performance Curves

Fig. 1 I/P Voltage VS O/P Power

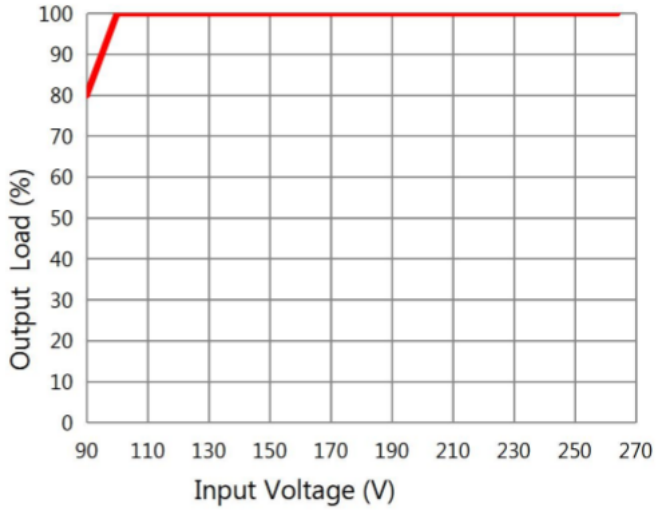


Fig. 2 O/P Power VS Ambient Temperature

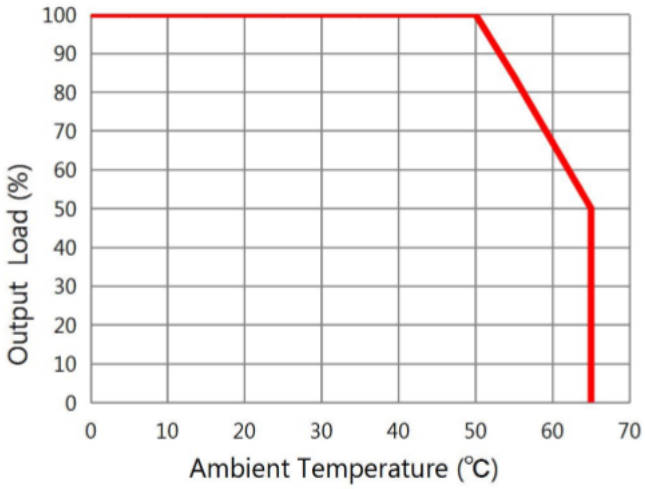


Fig. 3 Efficiency VS Output Power

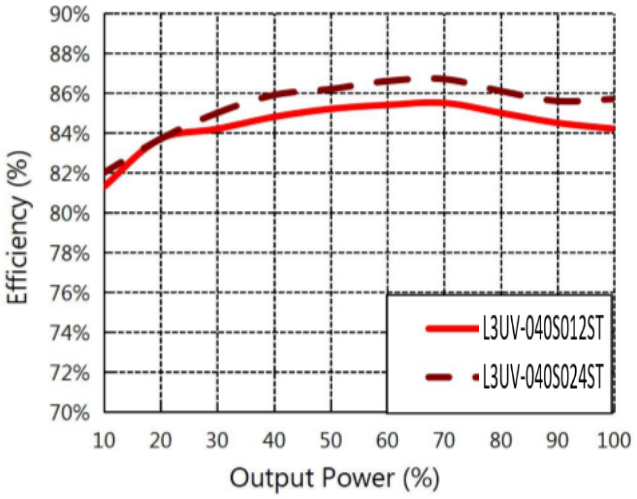
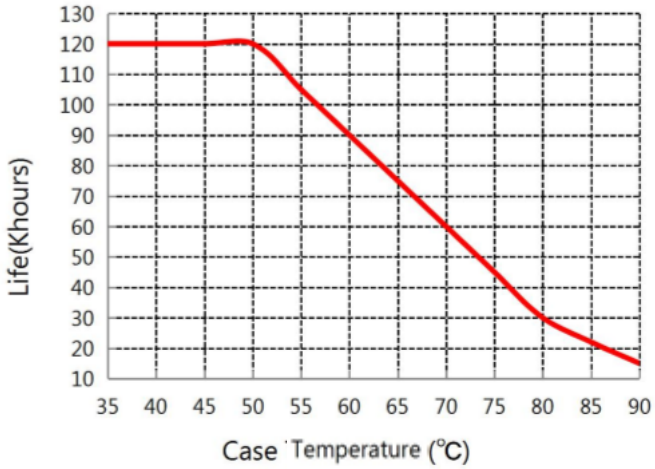
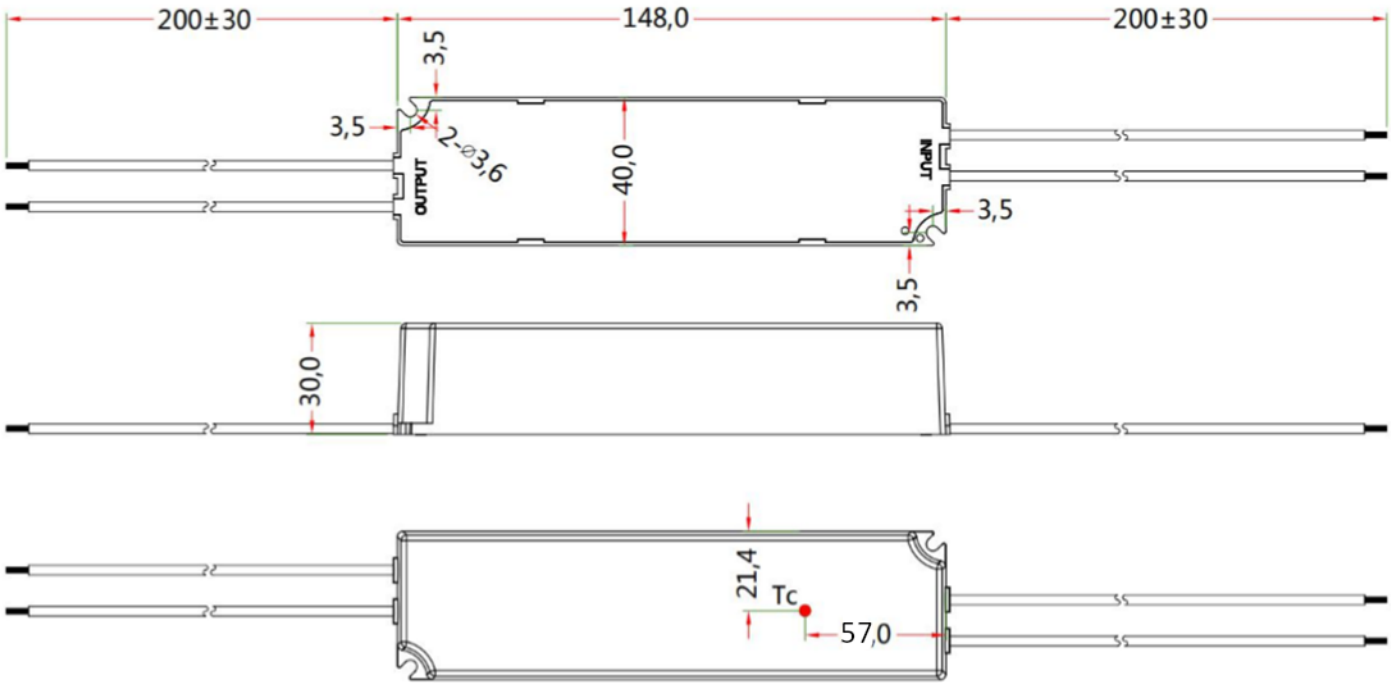


Fig.4 Lifespan VS Case Temperature

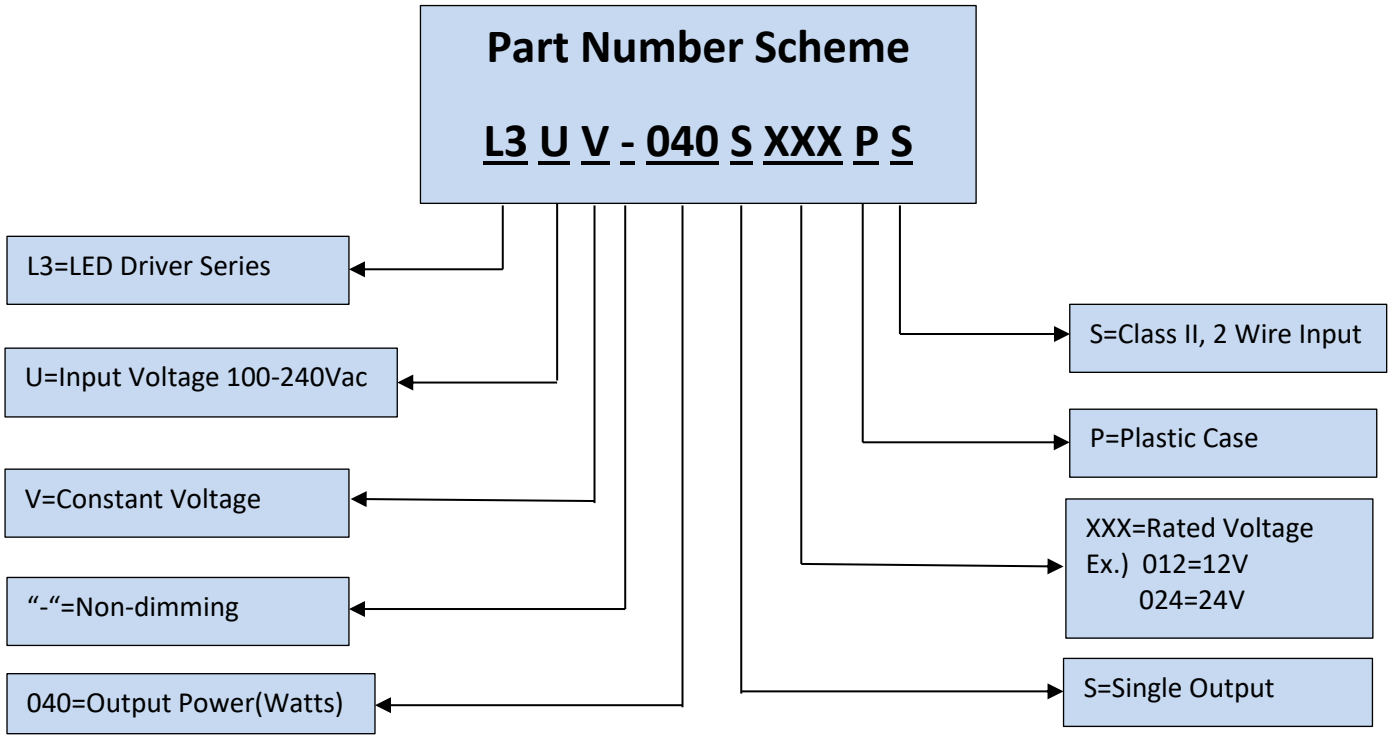


■ Mechanical Diagram

Unit:mm



Wire Specifications	
Input	UL 1015 #18AWG 105˚C, O.D: 2.6mm, BLACK: L, WHITE: N
Output	UL 1430 #18AWG 105˚C, O.D: 2.6mm, RED: V+, BLACK: V-



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***Specifications are subject to change without notice. Autec is not responsible for issues arising from errors or omissions.**