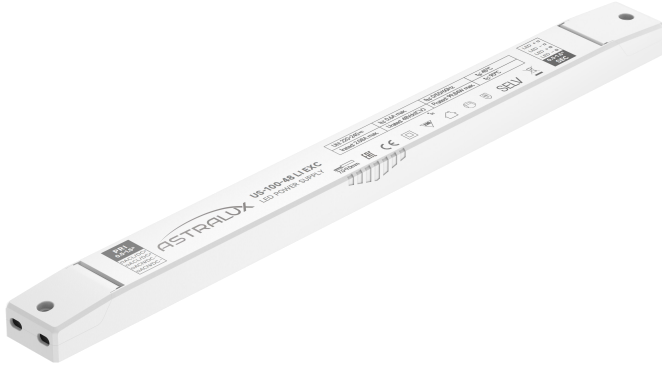
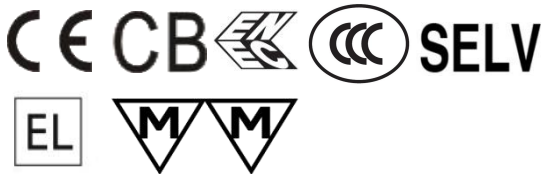


## 100W constant Voltage-LS Series



■ Approve

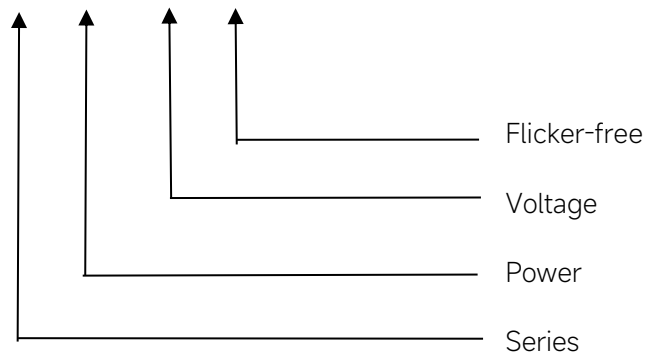


### ◆ Description

US-100-XX LI EXC is a 100W constant voltage LED driver that operates from 198-264Vac input with 12V or 24V output voltage. With it's compact dimensions from 353 X 30 X18mm. It is easy to integrate in LED strips products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

### ◆ Model code

US-100-XX LI EXC



### Features

- For luminaries of protection Class II, SELV, Independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor:  $\geq 0.95$  (Typ.)
- Efficiency:  $\geq 90\%$  (Typ.)
- 5 years warranty

### Applications

- LED strips

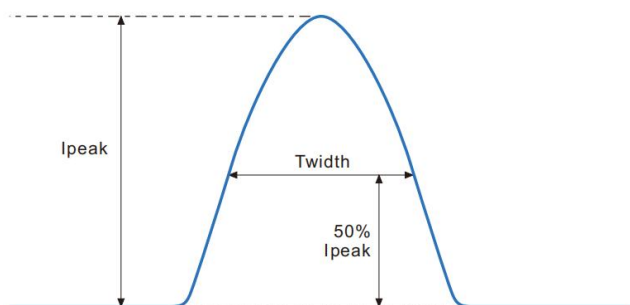
## ◆ Specification

Output	Constant Voltage	12VDC	24VDC	48VDC
	Current Range	0-8.33A	0-4.17A	0-2.08A
	Voltage Accuracy	±5%		
	Output HF current ripple(≥1KHz)	±5%		
	Output LF current ripple(≤120Hz)	±5%		
	SVM	≤0.4		
	Pst	≤1		
	Efficiency(Typ.)	≥90%@12V,Full load,230V;≥91%@24V/48V,Full load,230V		
Input	Rated input voltage	220-240V		
	Range of input voltage	198-264VAC		
	Maximum voltage	300VAC@1 h maximum,unit might not operate in this abnormal condition		
	Range of input voltage(VDC)	176-280VDC		
	Frequency(Hz)	0/50/60 Hz		
	Displacement factor	≥0.9		
	Power Factor	≥0.95@Full load,230V		
	Input Current max	0.6A		
	Start-up time	< 0.5S		
	No Load Power	≤0.5W		
	THD (Typ.)	< 10%@Full load,230V		
Protection	Over Load Protection	105-150%		
		YES/Auto Resume		
	Short circuit Protection	YES/Auto Resume		
capability	Over Temperature Protection	YES/Auto Resume		
capability	Surge capability (L-N)	1KV		
	Surge capability (L/N-Ground)	NA		
Environment	Operating Temperature	-20°C~+45°C		
	Humidity	20%-90%RH		
	Tc	90°C		
	Storage Temperature	-20°C~+60°C		
	Life time	> 50000h@Tc=85°C		
	Ripple & Noise	≤20dB(A)@10cm		
Surface	Dimension	353X30X18(LXWXH)mm		
	material	PC		
Standards	Safety	GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13;EN62384;		
	EMC	GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-5;EN61000-4-2,3,4,5,6,8,11, EN61547		
	Energy Efficiency	Erp2.0 EU 2019/2020		

	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	<p>1.All parameters NOT specially mentioned are measured at 240VAC input , full load and 25°C of ambient temperature.</p> <p>2.Ripple &amp; Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF &amp; 47 uF parallel capacitor.</p> <p>3.Switch and dimmer are not recommended to connect between this product output and luminaries.</p> <p>4.The efficiency testing will be affected by the instrument used and the results may also be different.</p> <p>5.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered.</p> <p>6.EL compatible with IEC 61347-2-13 Annex J, compatible with EN 60598-2-22 emergency lighting fixtures, compatible with EN 50172 central battery system applications.</p> <p>7.All power supply are complied with EMI regulations. Since they are belong to component and will be installed inside system enclosure. When they are integrated into a system, the EMI characteristics of the system must be re-verified again.</p>	

## ◆ Inrush Current

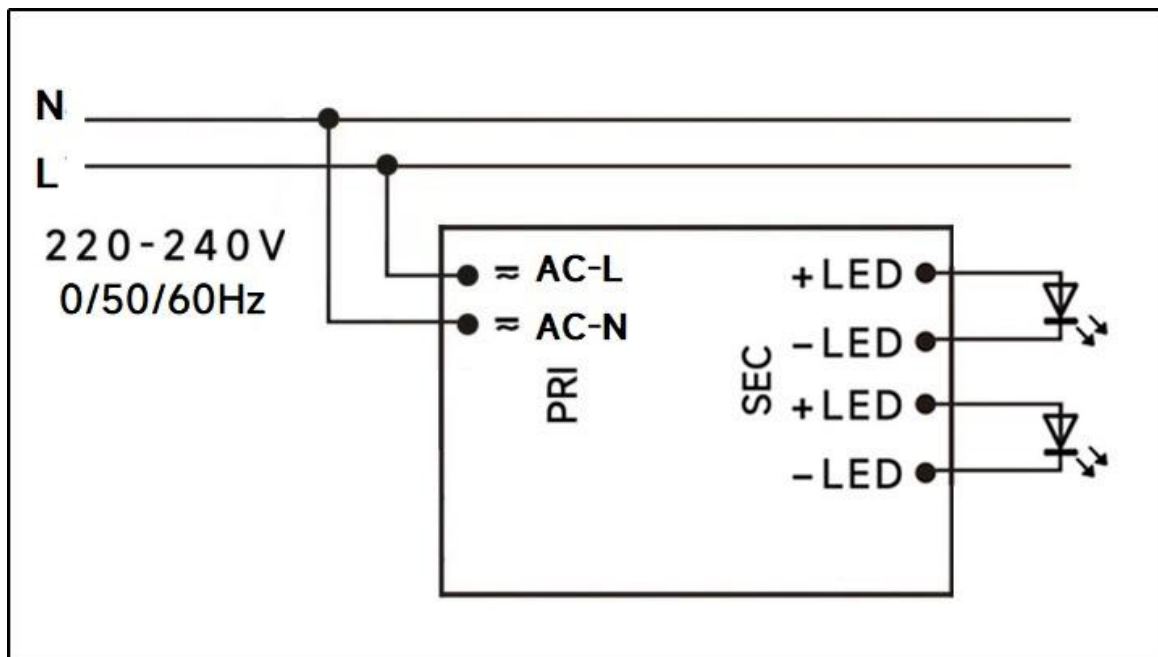
I <sub>peak</sub>	T <sub>width</sub>	B10	B16	B20	C10	C16	C20
39.4A	264μs	7pcs	12pcs	15pcs	12pcs	20pcs	25pcs



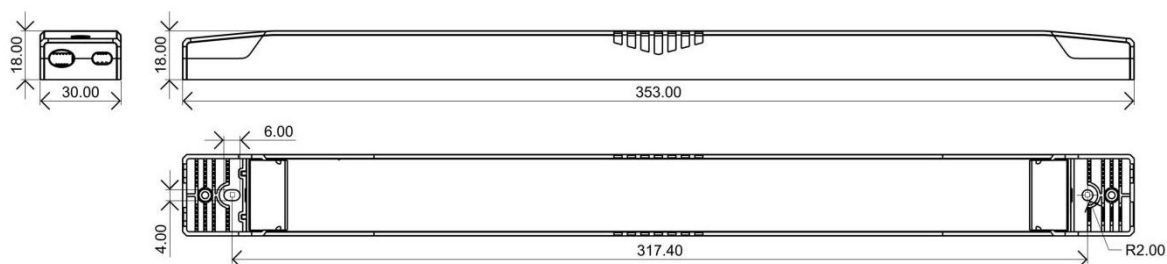
### Remarks:

- 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

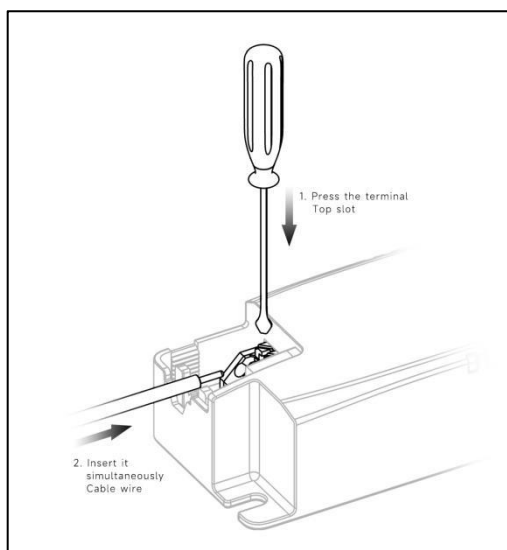
## ◆ Wiring diagram



## ◆ 2D diagram



## Terminal



## ◆ Wiring & Connections

Specification item		Value (Unit )
Input	Input wire cross-section	0.5...1.5 mm <sup>2</sup>
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm <sup>2</sup>
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

## ◆ Recommended wire

Wire cross-section	Wire type
2*0.5mm <sup>2</sup>	H03VVH2-F 2core
2*0.75mm <sup>2</sup>	H03VVH2-F 2core
1.5mm <sup>2</sup>	CCC 08(RV-90)
16AWG(1.25mm <sup>2</sup> )	UL1015

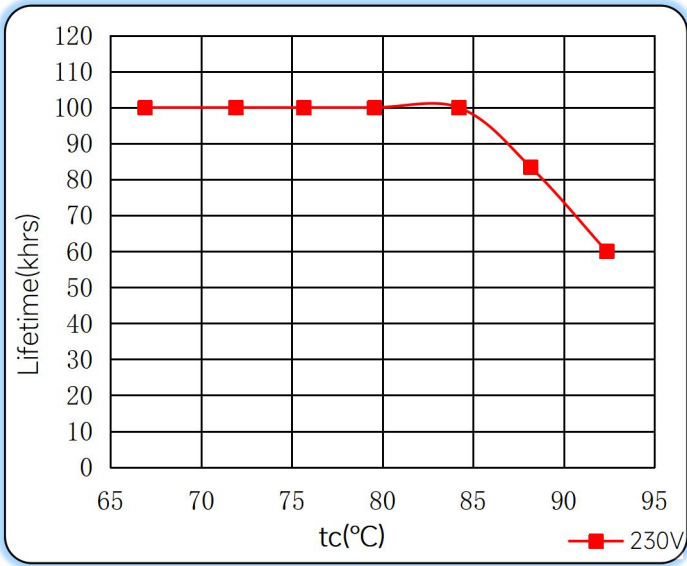
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

## ◆ Packaging

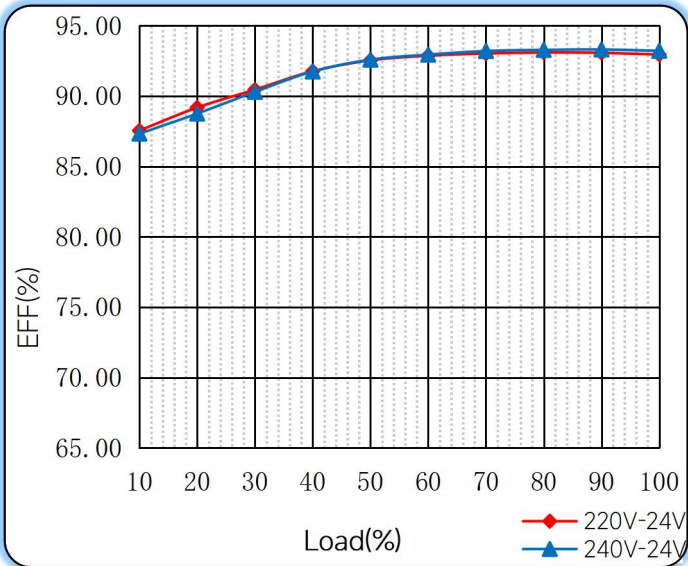
Model	Product Dimensions(mm)	weight/piece	Outer carton dimension(mm)	Quantity/carton	Net weight/carton(Kg)	Gross weight/carton(Kg)
US-100-XX LI EXC	353X30X18mm	0.26	370X275X215	81	21.35	21.97

◆ Curve for US-100-24 LI EXC

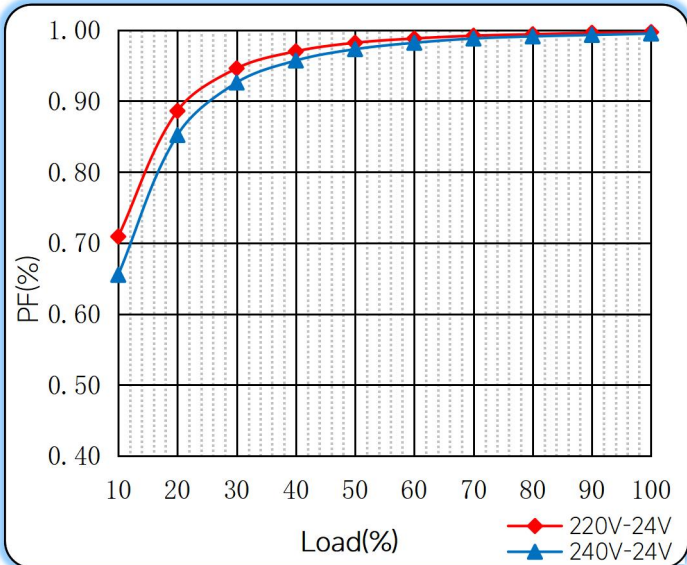
Lifetime vs. Temperature Curve



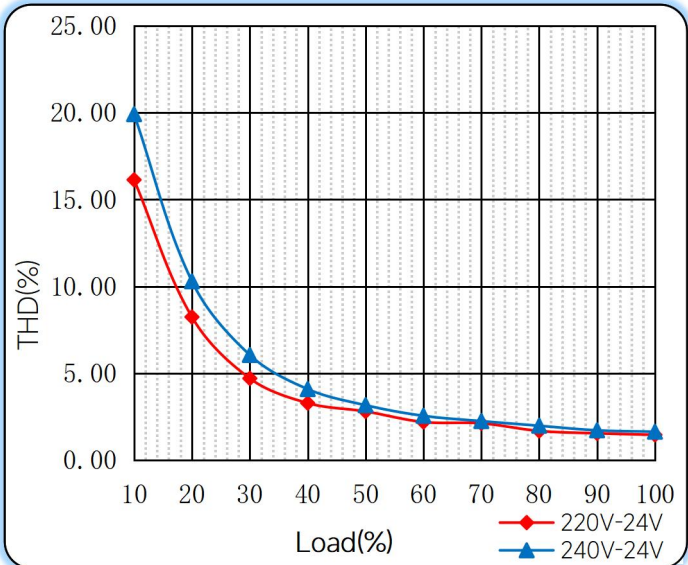
Efficiency vs. Load



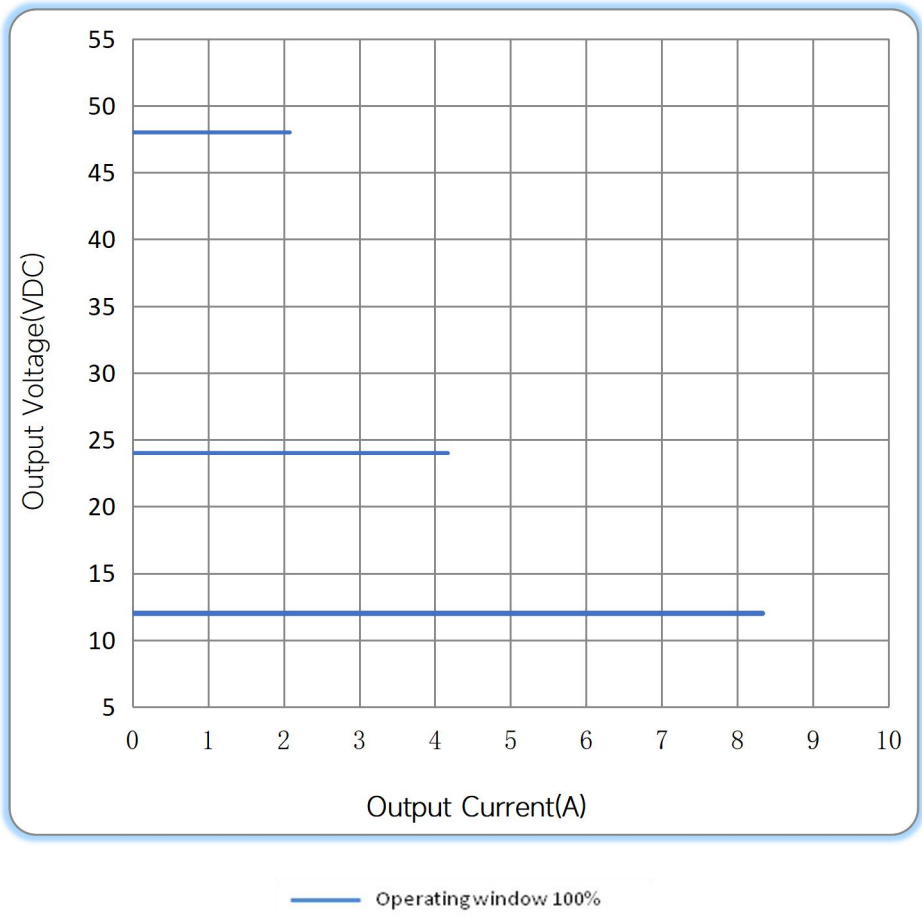
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/07/11

Remark:The final interpretation of the contents of the specification belongs to Astralux.

E-mail: [sales@astralux-driver.com](mailto:sales@astralux-driver.com)  
Website : [www.astralux-driver.com](http://www.astralux-driver.com)