

## 60W constant Voltage-LS Series



### Features

- Class II, SELV, Independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor:  $\geq 0.95$  (Typ.)
- Efficiency:  $\geq 88\%$  (Typ.)
- 5 years warranty

### Applications

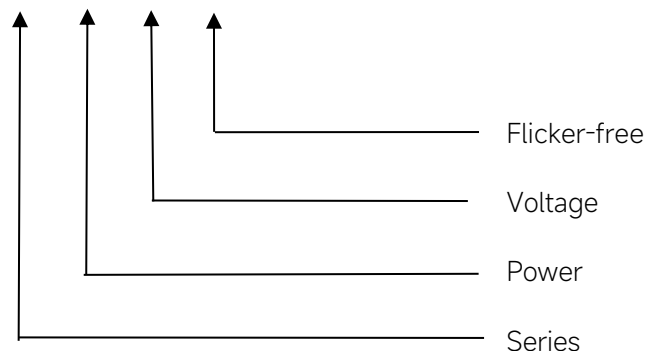
- LED strips

### ◆ Description

LS-60-XX LI1 EXC is a 60W constant voltage LED driver that operates from 198-264Vac input with 12V or 24V output voltage. With its compact dimensions from 150 x 45 x 30 mm. 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

#### LS-60-XX LI1 EXC



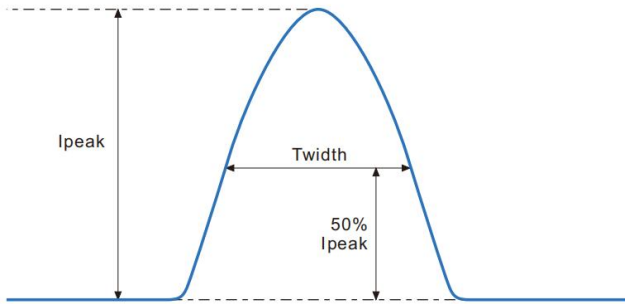
## ◆ Specification

Output	Constant Voltage	12VDC	24VDC
	Current Range	0-5A	0-2.5A
	Voltage Accuracy	±5%	
	Output HF current ripple(≥1KHz)	±1%	
	Output LF current ripple(≤120Hz)	±1%	
	SVM	≤0.4	
	Pst	≤1	
	Efficiency(Typ.)	≥88%@Full load,230V	
Input	Rated input voltage	220-240VAC	
	Range of input voltage	198-264VAC	
	Frequency(Hz)	50/60 Hz	
	Displacement factor	≥0.95	
	Power Factor	≥0.95@Full load,230V	
	Input Current max	0.39A	
	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	
	Over Voltage Protection	> 12.6VDC	> 25.2VDC
		YES/Auto Resume	
	Short circuit Protection	YES/Auto Resume	
	Over Temperature Protection	YES/Auto Resume	
capability	Surge capability (L-N)	1KV	
	Surge capability (L/N-Ground)	2KV	
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	> 50000h@Tc=90°C
	Ripple & Noise	≤25dB(A)@20cm	
Surface	Dimension	150X45X30(LXWXH)mm	
	material	PC	
Standards	Safety	GB19510. 1, GB19510. 14;EN61347- 1, EN61347-2- 13	
	EMC	GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-5	
	Energy Efficiency	Erp2.0 EU 2019/2020	
	RoHS	RoHS (2011/65/EU) (EU)2015/863	

Note	1.All parameters NOT specially mentioned are measured at 240VAC input , full load and 25°C of ambient temperature.
	2.Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 uF parallel capacitor.
	3.Switch and dimmer are not recommended to connect between this product output and luminaries.
	4.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered.

## ◆ Inrush Current

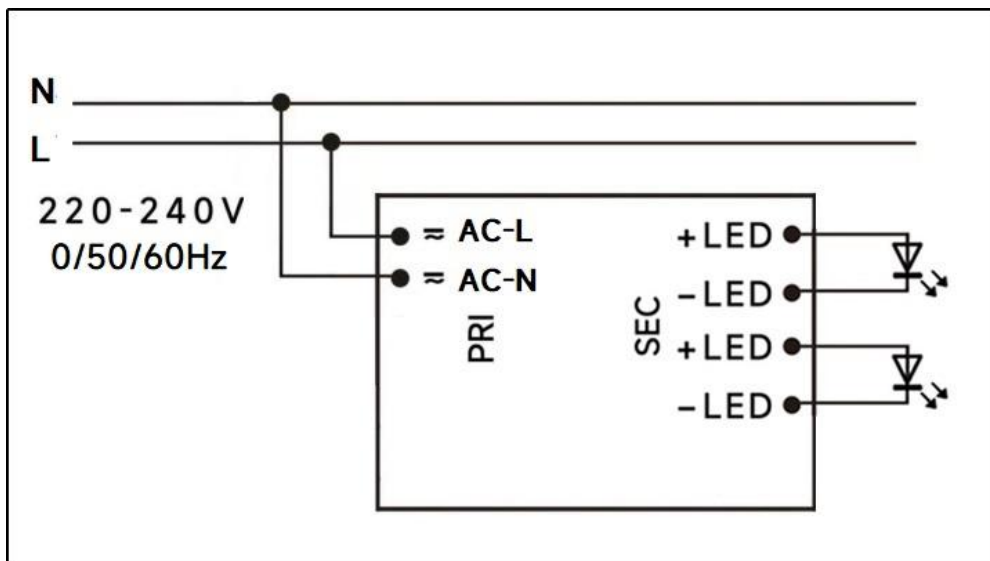
I <sub>peak</sub>	T <sub>width</sub>	B10	B16	B20	C10	C16	C20
30A	<b>216μs</b>	14pcs	22pcs	28pcs	20pcs	32pcs	41pcs



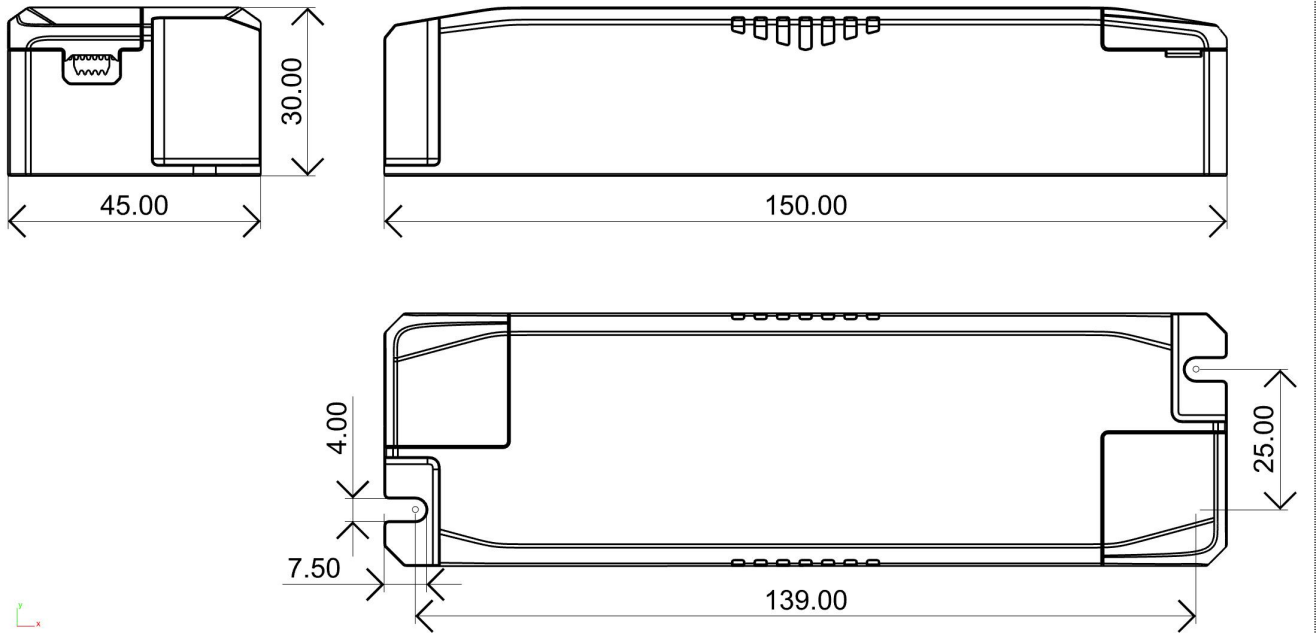
### Remarks:

- 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.

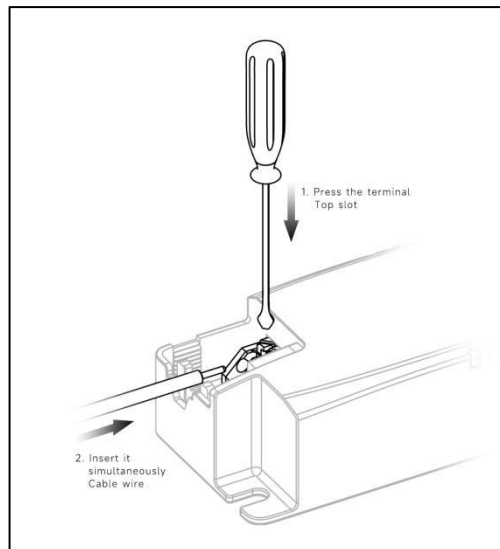
## ◆ Wiring diagram



◆ **2D diagram**



**Termina**



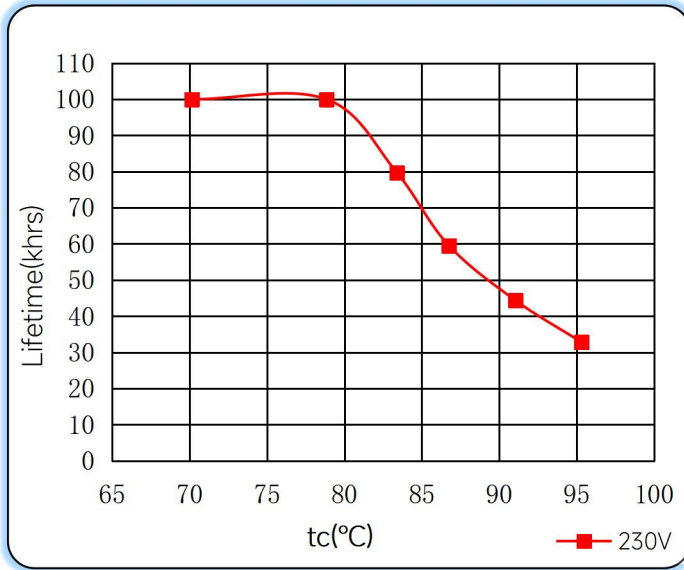
## ◆ Wiring & Connections

	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

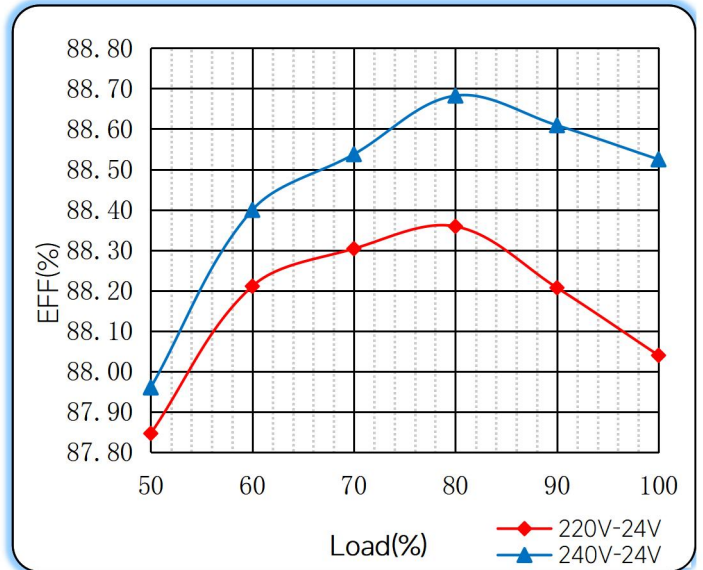
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

◆ **Curve for LS-60-24 LI1 EXC**

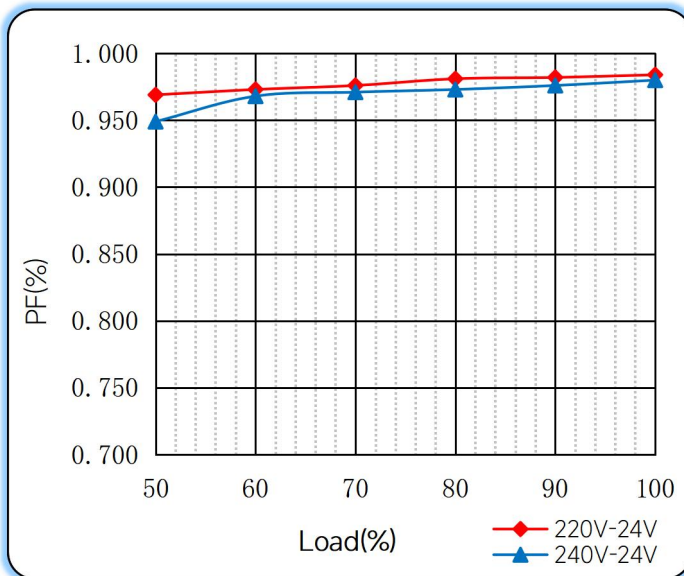
Lifetime vs. Temperature Curve



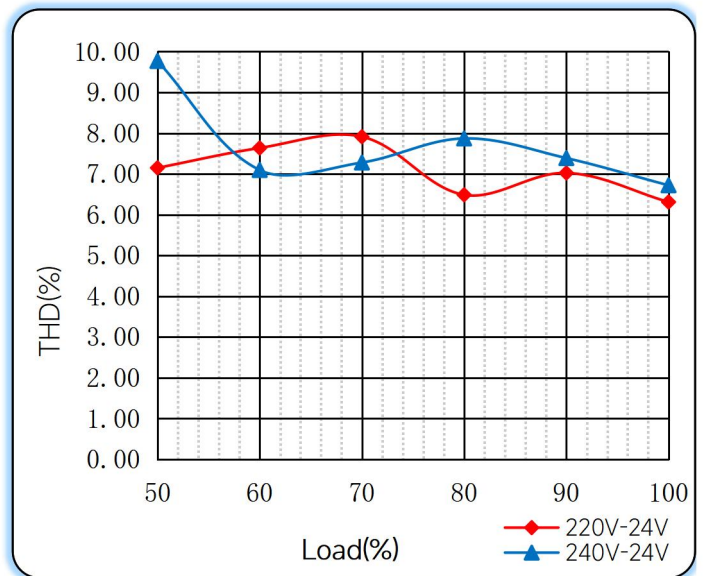
Efficiency vs. Load



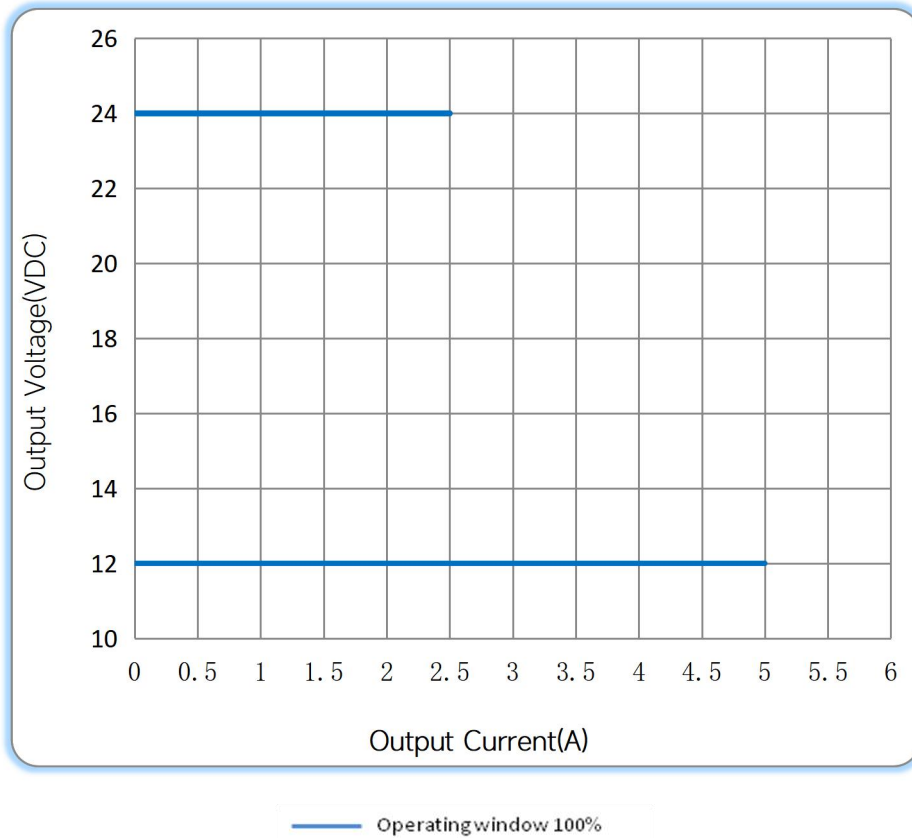
Power Factor Characteristics



THD vs. Load



### ◆ Operating window



### ◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/07/12

Remark: The final interpretation of the contents of the specification belongs to Eaglerise Electric & Electronic (China) Co., Ltd.

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Manual