

## 30W constant Voltage-LS Series



### Features

- Class II, SELV, Independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OCP/OTP
- Power Factor:  $\geq 0.95$  (Typ.)
- Efficiency:  $\geq 86\%$  (Typ.)
- 5 years warranty

### Applications

- LED strips

■ Approve

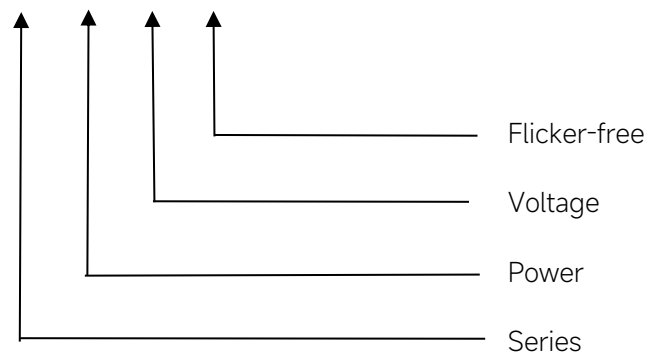


### ◆ Description

LS-30-XX LI1 EXC is a 30W constant voltage LED driver that operates from 198-264Vac input with 12V, 24V, 48V output voltage. With its compact dimensions from 116 x 41.2 x 26 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-30-XX LI1 EXC



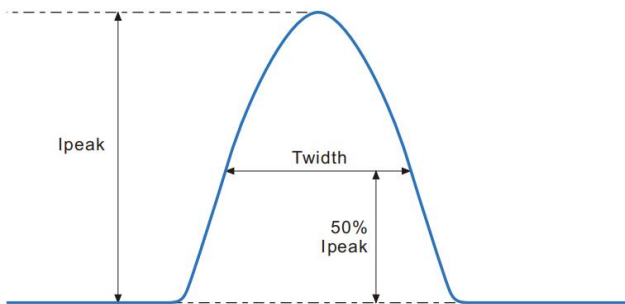
## ◆ Specification

Output	Constant Voltage	12VDC	24VDC	48VDC
	Current Range	0-2.5A	0-1.25A	0-0.625A
	Voltage Accuracy	±5%		
	Output HF current ripple(≥1KHz)	±3%		
	Output LF current ripple(≤120Hz)	±3%		
	SVM	≤0.4		
	Pst	≤1		
	Efficiency(Typ.)	≥86%@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		
	Input Current max	0.25A		
	Start-up time	< 0.5S		
	No Load Power	≤0.5W		
	THD (Typ.)	< 10%		
Protection	Over Load Protection	105-150%		
		YES/Auto Resume		
	Over Circuit Protection	> 3.75A	> 1.875A	> 0.9375A
		YES/Auto Resume		
capability	Surge capability (L-N)	1KV		
	Surge capability (L/N-Ground)	NA		
	Operating Temperature	-20°C~+45°C		
	Humidity	20%-90%RH		
Environment	Tc	80°C		
	Storage Temperature	-20°C~+60°C		
	Life time	> 50000h@Tc=75°C		
	Ripple & Noise	≤20dB(A)@20cm		
	Surface	Dimension	116X41.2X26(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	<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 DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered.</p>	

## ◆ Inrush Current

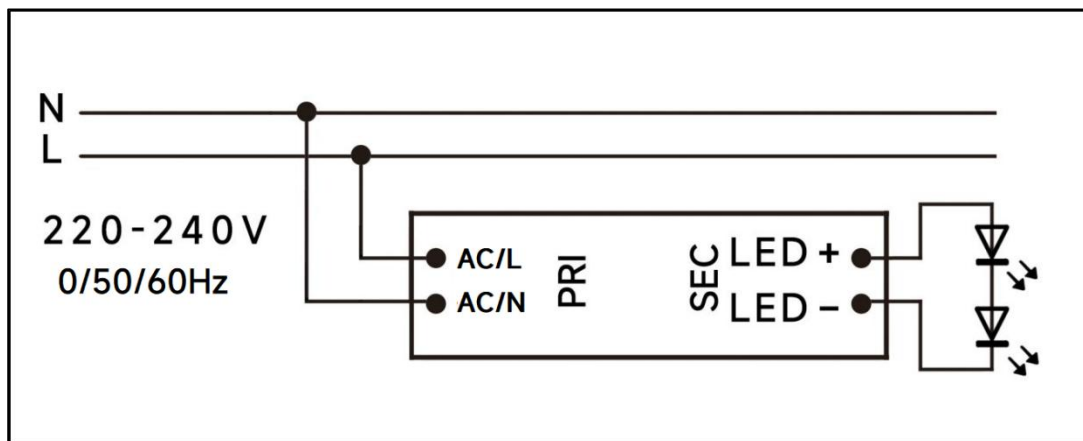
I <sub>peak</sub>	T <sub>width</sub>	B10	B16	B20	C10	C16	C20
17.3A	136μs	32pcs	51pcs	64pcs	32pcs	51pcs	64pcs



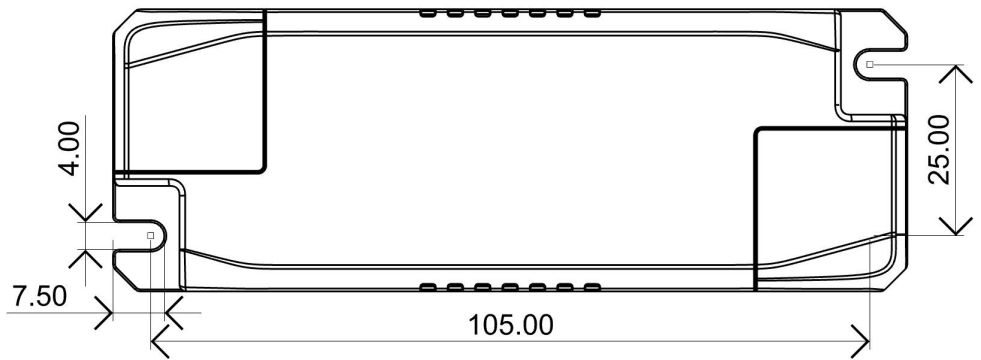
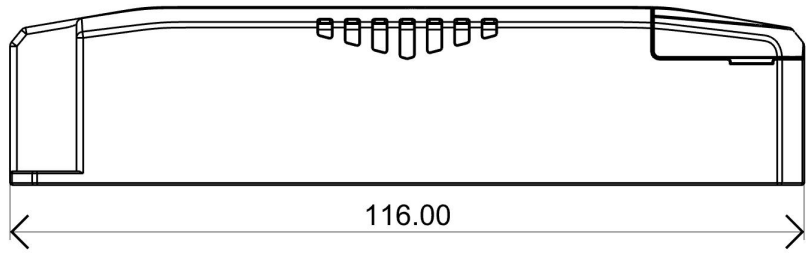
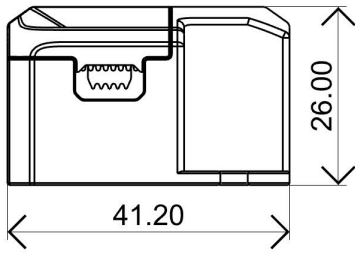
### Remarks:

- 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.

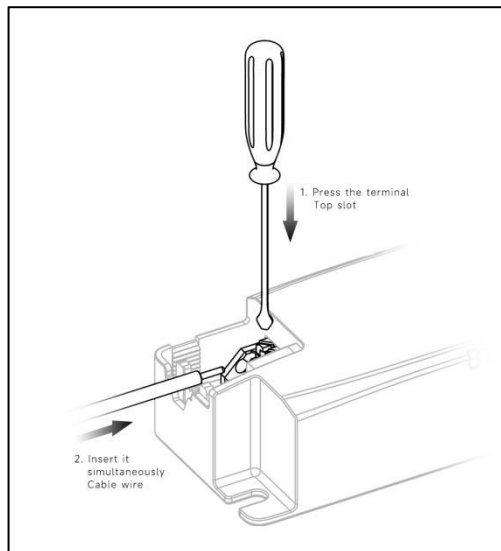
## ◆ Wiring diagram



◆ **2D diagram**



**Terminal**



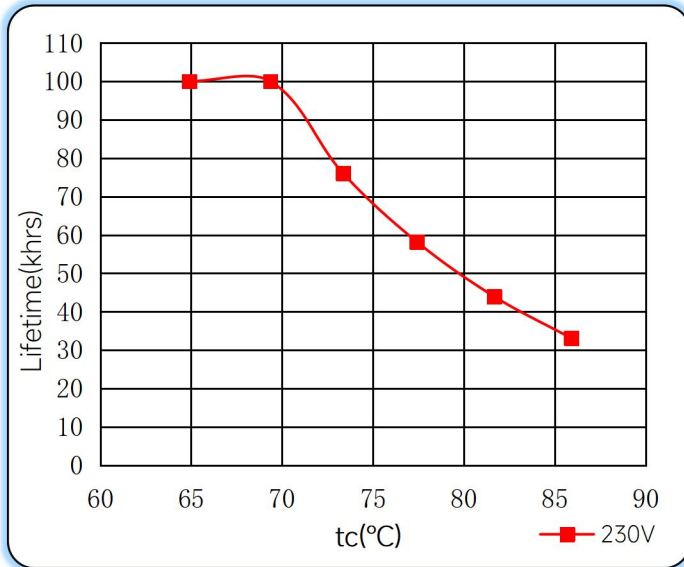
## ◆ Wiring & Connections

	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

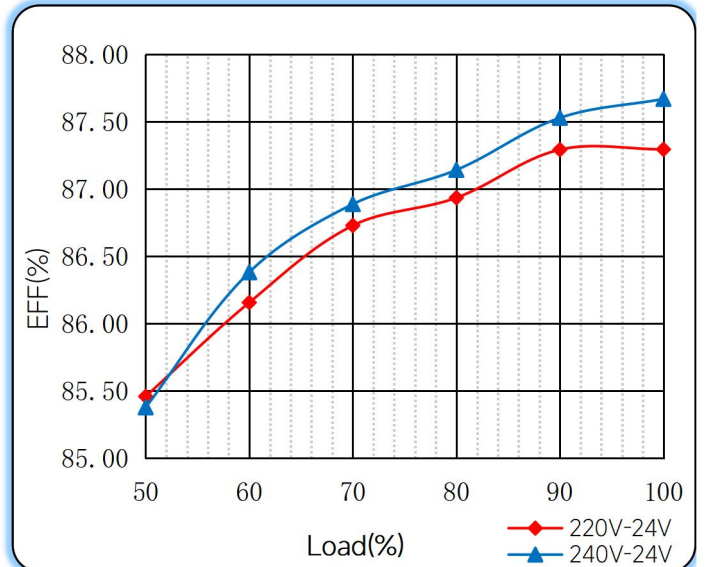
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

◆ **Curve for LS-30-24 LI EXC**

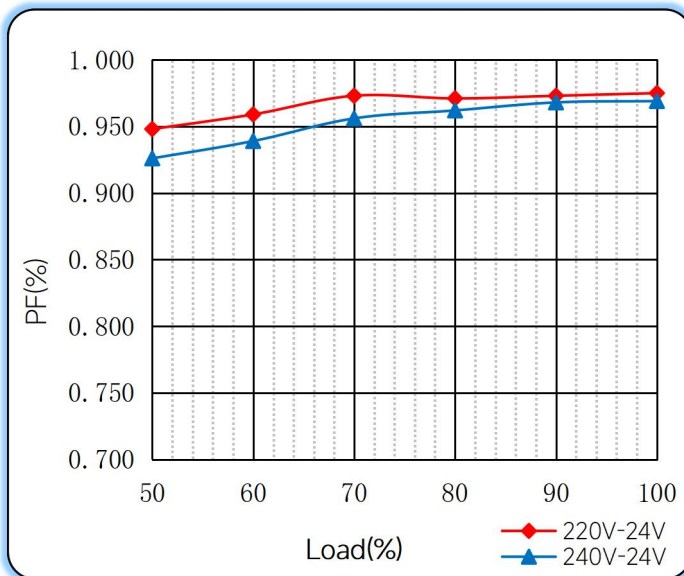
Lifetime vs. Temperature Curve



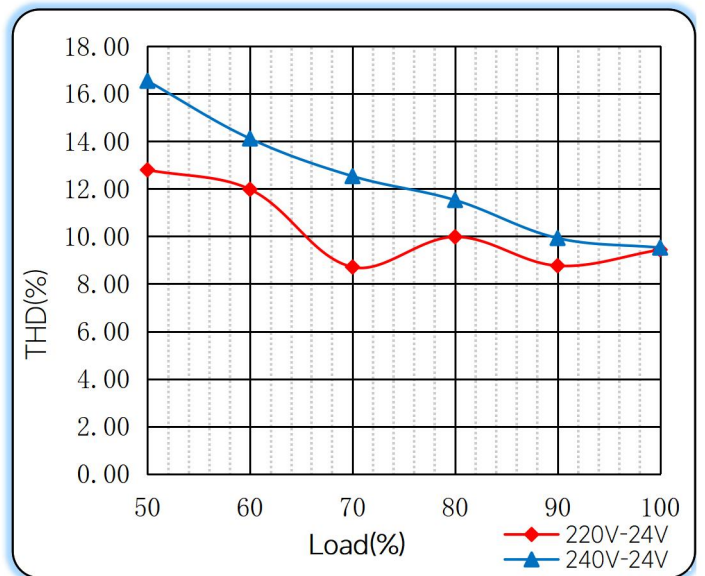
Efficiency vs. Load



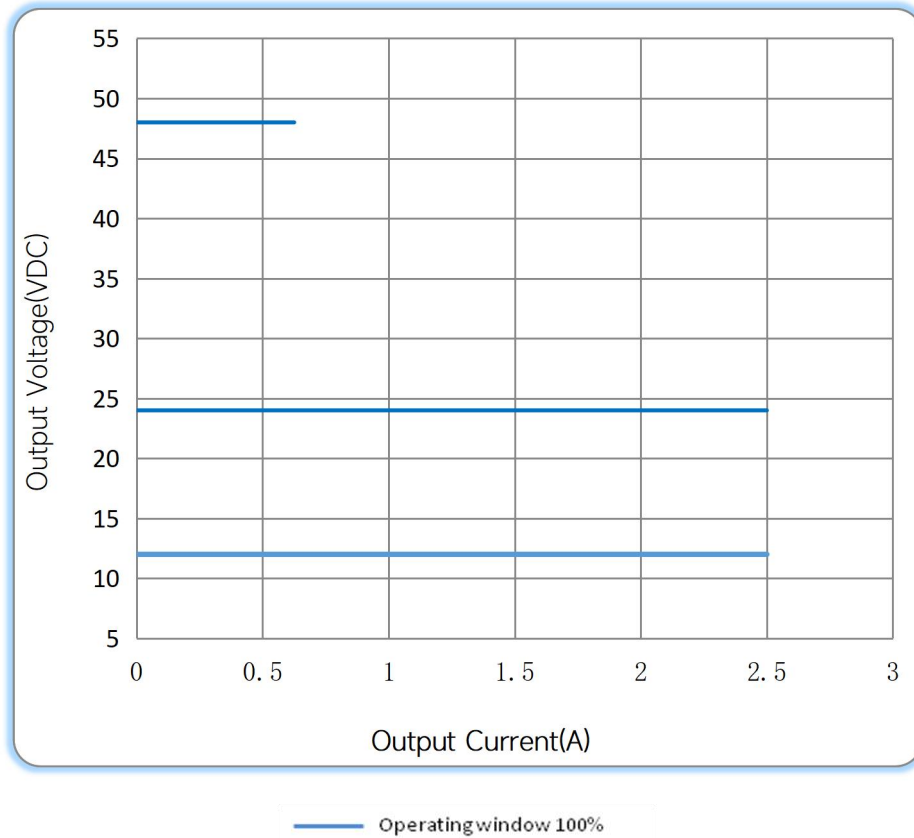
Power Factor Characteristics



THD vs. Load



### ◆ Operating window



### ◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/07/12
Tc/Ta	75°C/40°C	80°C/45°C	B	2023/12/13
Lifetime	> 50000h@Tc=80°C	> 50000h@Tc=75°C	C	2024/03/12

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

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Manual